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Task 1 Deliverable 1.2
*Current Functional Status and Deficiencies Report
for the*

Federal Building 517 Gold Avenue

ALBUQUERQUE, NEW MEXICO

Final Report



PREPARED FOR
GSA/Spaulding & Slye

FEBRUARY 25, 2004
03-070

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517 GOLD AVENUE

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Site Visit:
November 6-14, 2003

**Federal Building
517 Gold Avenue
Albuquerque, New Mexico**

Report Date:
February 25, 2004

I. EXECUTIVE SUMMARY

Property Description/Condition

The property consists of a single "Class C" office building located in downtown Albuquerque. The building is named the Federal Building and is an eight story, plus basement, 275,400-gsf structure. The building was built in 1958. The address of the building is 517 Gold Avenue, Albuquerque, New Mexico. The overall condition of the property is fair to poor compared to other similar office properties of this age.

Building Systems

Site:

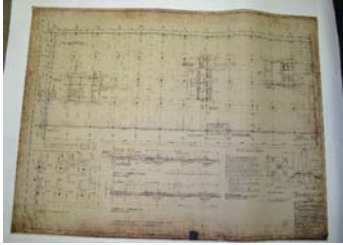


Relatively level rectangular urban site. The site has street frontage (5th St. SW., 6th St. SW., and Gold Avenue) on three sides and 16 ft wide public alley frontage on the north side.

.98 acres per the original site survey. It should be noted that contrary to the previous studies the site survey indicates the face of the building is setback 2 feet from the south property line and 38 feet from the north property line. The east and west elevations are built to the property lines.

Asphalt pavement in the rear parking lot, and concrete pavement in the public sidewalks and the alley. Surface parking paving maintenance and repair costs should be an anticipated expense.

There are 22 surface parking stalls onsite including 4 spaces reserved for use by the disabled. Many of the stalls are tandem. Additional public parking garages are available within walking distance. The building is a legal non-conforming use in regard to parking. A new office building of similar size would require approximately 514 spaces. This requirement may apply if the building is demolished or significantly renovated. GSA may be exempt from the City Zoning requirement, however this exemption would likely not apply to a future owner.

Structural:

Concrete frame with flat concrete slabs. Mat concrete foundation system. Evidence of excessive floor slab deflection and hairline cracking of the undersides of the slabs was observed. Past studies to address this deflection and cracking have identified structural inadequacy of the slab design and construction. The most notable issue is the potential of shear punching failure. The building does not comply with current seismic design requirements. Significant structural repair is required to comply with current code and GSA standards.

Building Exterior:

Masonry infill walls consisting of a single wythe of 4-inch thick brick, no cavity and 8-inch thick concrete block backup. The masonry exterior walls are not anchored to the concrete structure, for adequate seismic bracing. 1-inch thick semi-rigid insulation is noted on the inside face of the block. The exterior walls are in good condition for a building of this age. However, the appearance of the façade is dated and not typical of a modern office building.



The original pivoting, single glazed, punch windows, are set in anodized aluminum frames. Painted porcelain spandrel panels are provided below the windows. The typical window size is 6'2" high X 3'10" wide. The windows are dated in appearance, and do not provide sufficient vision area for a modern office building. The windows appear to be functional and remain watertight. Several of the porcelain panels have cracked. The painted finish was field applied.

Roofing:

The roofing membrane is comprised of a modified built-up assembly. Reportedly the membrane has been replaced within the past 10 years. The membrane is in fair condition. No documentation of the roof age was provided for review. No warranty was provided for review. No active roof leaks were evident.

Interiors:

Commercial-quality finishes include suspended 2'x2' and 2'x4' acoustical panel ceilings, commercial quality carpeting, carpet tile, and vinyl asbestos floor tile (suspected to be below the carpeting, in most locations). The original suspended plaster ceilings remain above much of the suspended ceilings. Some of the original mastic holding the 12'x12" ceiling tile remains in place. The new suspended ceiling tile and grid is in generally good condition. The wall finishes are typically painted gypsum board. Typical gypsum board interior partition walls framed with metal studs. The corridor walls consist of painted plaster over 4-inch thick US Gypsum Company Pyro-Bar block walls. These walls are not seismically braced. The first floor lobby finishes include 2'x2' suspended acoustical ceiling tile, terrazzo flooring, and granite wall panels. The common area corridors have commercial-quality carpeting. Toilet room finishes are ceramic tile



floors and walls, with suspended painted gypsum board ceilings. The finishes in the toilet rooms are dated and require refurbishment. The office area and corridor finishes also require refurbishment.

Limited Disabled Access Review:



The four existing spaces reserved for use by the disabled do not meet the current requirements. One additional parking space is required. No means of access is provided into the main entrance doorway at Gold Avenue. Install a ramp or wheelchair lift at the main entrance from Gold Avenue. The primary entrance doors, which lead into the ground floor level lobby, are sufficiently wide to allow access. Fully accessible toilet rooms should be provided on all floor levels as a part of the proposed renovation.

HVAC:



The HVAC system is a constant volume variable temperature (CVVT) system. The air-handling units (AHUs) on each floor have cooling and heating coils. The AHUs blend cooled and heated air to maintain the space temperature. The AHUs receive chilled water and steam from a central plant located in the basement. The central plant also serves 500 Gold with chilled and hot water; and 421 Gold and 123 Fourth Street with steam. The central plant's major components date from 1992 and 1999. The chilled water system (chillers, cooling towers, pumps) were replaced in 1992. The steam boilers were replaced in 1999. The AHUs are original from 1958.

Plumbing:



The City of Albuquerque provides the water and sewer services. The domestic water pipes observed were copper and the drainpipes were galvanized steel. Steam boilers and steam-to-hot water converters generate the domestic hot water. Hot water is generated by heating boilers in the winter, and by smaller boilers in the summer. The boilers are located in the basement. The boilers also provide domestic hot water for the 500 Gold Building. The heating boilers are new and in good condition. One of the two summer boilers was inoperable because of a leak at the time of inspection. Funds should be budgeted for the replacement of the summer boilers. The plumbing fixtures appear dated but generally in good condition. Budget for the replacement of the galvanized drain piping as part of future tenant renovations.

Electrical:



Public Service Company of New Mexico (PNM) provides 4160-volts, 3-phase, 3-wire electricity to the building from utility power pole in the public alley to the north of the building. 4160-volts is served to the primary switchgear in the basement that serves the chillers and a 4,000-ampere, 480/277 volts, 3-phase, 4-wire *ITE Imperial* distribution switchboard. Bus ducts, panel boards, transformers, and distribution equipment is by *Federal Pacific Electric*, which is obsolete equipment. All distribution feeders, feeder ducts and branch circuit conductors are copper. The electrical system is in fair

condition.

Lighting throughout utilizes T12 lamps and magnetic ballasts. Upgrade to energy efficient fixtures is recommended.

Emergency power is provided by a 500 KW diesel generator set located on the north site of the building at grade level. The generator also serves 500 Gold Avenue. Emergency power is served to the elevator banks, fire pump, egress and exit lighting, fire alarm system, and security system.

Fire Protection:



This building was originally constructed without the installation of an automatic fire sprinkler system. Automatic fire sprinklers were retrofitted throughout the building in 1989. Fire sprinklers are currently provided throughout the building. Some areas such as the electrical rooms and elevator machine rooms are provided with dry-pipe sprinkler systems and/or on-off sprinklers. All other areas are wet-pipe systems that utilize standard spray pendant or sidewall sprinklers. The sprinkler system is connected to the municipal water supply and is not provided with a booster pump or other means to augment the municipal supply capabilities. With some exceptions, the fire sprinkler system appears to be in good repair and of adequate design.

Vertical Transportation:



Elevator service is provided by a four-car group of gearless electric passenger elevators serving all nine levels in the building. Originally manufactured and installed by Otis Elevator Co., in 1958, all four elevators underwent a comprehensive modernization in 1994. The modernization project included a new *Dover Traflomatic III* control system with *General Electric* SCR drives, new *Dover* door operating equipment, new *Dover* pushbuttons, lanterns and position indicators and new *Dover* car enclosures. The elevators appear to be receiving meticulous maintenance care and are capable of providing at least another 20 years of useful life before another modernization program would be anticipated.

II. SALIENT FACTS

Building Data

Number of Buildings/Tenants:	<p>1 building. The building currently has 12 tenants totaling 102 people. The breakdown by population is:</p> <ul style="list-style-type: none">• Mechanical/custodial contractor (34)• FBI (32)• GSA-FTS (10)• GSA-PBS (9)• FDA (4)• Wackenhut Security Services (4)• Cafeteria (3)• G&S Construction (2)• U.S. Marshals (2)• Federal Occupational Health contractor (1)• GSA-FSS (1) <p>The high vacancy is due to leasing difficulties with the building due to the perception in the market place of seismic and structural deficiencies, environmental concerns and dated construction. The GSA occupies some space on the first floor, the FBI occupies a portion of the second floor, the FDA occupies a corner of the fourth floor, and a common cafeteria is located in the basement. A below grade pedestrian and utility tunnel connects 517 Gold Avenue to 500 Gold Avenue.</p>
Gross Building Area:	Approximately 275,400 gross square feet (measured to the outside face of the building)
Rentable Building Area:	223,517 rsf per the Appraisal report dated 11/28/98.
Year Built:	1958 (the construction plans are dated 1956)
Number of Stories:	8 plus basement
Clear Height:	11'0" floor-to-floor. 13'6" at the basement level.
Total Height:	79'6" to the highest occupiable floor level from grade level. The building is classified as high-rise construction per current code.
Building Type:	Office Building
Construction Type:	Type 1 Fire Resistive
Occupancy Class:	B-Business Occupancy
Current Code(s):	Uniform Building Code 1997 City of Albuquerque GSA Standards – UBC, NEC, NFPA 101, ASHRAE Standard 100.3 & 100.5, UFAS – Uniform Federal Accessibility Standard

ADA – Americans With Disabilities Act (1990)

Code at Construction: 1955 Uniform Building Code and GSA Standards at the time of design.

Code Compliance: The Building was built in general compliance with codes at the time of construction. The Building does not fully comply with current codes regarding lateral bracing for seismic forces, the structural capacity of the floor slabs, high-rise fire/life safety requirements, accessibility requirements, and GSA Facilities Standards for the Public Buildings Service (PBS-PQ101.1).

Zoning: Zone SU-3, Special Use Center to promote high-density development. Requires site plan approval. If a proposed use is not included in the plan then the C-2 zone applies. Office buildings are a permitted use. GSA is required by Public Buildings Act of 1988 to consider local zoning requirements to the maximum extent practical. GSA has the final authority to reject the local requirements. A new owner would likely be required to comply with the City zoning requirements (including the need to provide adequate parking for the proposed use).

Seismic Zone/PML: Zone 2B (moderate probability of a major seismic event)

Utility Companies

Domestic Water:	City of Albuquerque
Gas Service:	PNM (Public services of New Mexico)
Electric:	PNM (Public Services of New Mexico)
Sanitary Sewer:	City of Albuquerque
Storm Drainage:	City of Albuquerque
Telephone:	QWEST

III. PURPOSE AND SCOPE

Background

Building Evaluations, LLC (BE, LLC) performed a visual observation of the subject buildings and site November 6 – 14, 2003. Mr. Waldo Griego, Property Manager (GSA) assisted BE, LLC in the site visit, which was performed by the following BE, LLC Staff:

Project Manager:	Richard Buchanan, AIA	Phone 703.385.3070
BE, LLC Evaluators:	Architectural:	Richard Buchanan, AIA
	Mechanical/Plumbing:	Donald Kozlowski, PE
	Structural:	Thomas Russello, PE (BEI Structural Engineers)
	Seismic:	Jeff Dyer, PE (J.S. Dyer & Associates)
	Electrical:	Robert Knebel, PE (BK Engineering)
	Fire/Life Safety:	Steve Sheldon, PE (Rolf Jensen & Assoc.)
	Curtainwall:	Douglas Stieve, AIA (WJE)
	Vertical Transportation:	Des Drotos (Desmond Associates)

The following contractors were also contacted to provide BE, LLC with cost estimates. Michael Llewellyn (GSA) escorted the (first four) contractors noted below, through the building on January 5, 2004.

Contractors:	Demolition:	Coronado Wrecking - Keith Whale, 505.877.2821
	Abatement:	Southwest Abatement, Inc. - Tad
	Mechanical:	MBI - Ken Otteni, 505.881.0220
	Curtainwall:	SW Glass - Dave Lopez, 505.345.5565
	Structural/Seismic:	Structural Preservation Systems

Purpose

The purpose of this assessment is to evaluate the condition of the existing building and site as it relates to a potential real estate transaction or renovation/repositioning of the property by GSA. The report is based on those conditions observed on the days the field assessment was accomplished and from information obtained from BE, LLC's review of the available construction documents and previous reports. This report is by no means a guarantee of the overall condition of the facility.

Scope of Services

This evaluation was conducted in accordance with the terms of the agreement, dated October 20, 2003 between Spaulding & Slye Colliers and BE, LLC.

The Scope of Services for this assignment includes the following:

- Architectural Assessment
- Mechanical, Electrical, Plumbing Assessment
- Fire/Life Safety Assessment
- Structural Assessment
- Seismic Assessment

- Vertical Transportation System Assessment
- Curtainwall Assessment
- Public Records Review
- Opinions of Probable Costs
- Limited Photographic Documentation of Specified Deficiencies

The Scope of Services for this assignment does not include the following:

- Concealed or inaccessible areas of the building that require the use of destructive investigations beyond that proposed in the Scope of Services.
- Work requiring the use of special consultants beyond that noted in the Scope of Services.
- Furniture, fixtures, and process equipment not part of the building structure.
- Utility rooms and power vaults, which are the property of the utility company.
- A definitive opinion concerning compliance with all codes/regulations, due to the existence of literally thousands of local and model codes, and regulations pertaining to design and construction. BE, LLC shall exercise usual and customary professional care, as architects and engineers, in its efforts to obtain available information and to assess building code/regulation compliance.
- A guarantee of the accuracy and/or the completeness of information provided to BE, LLC by others.
- A legal opinion regarding our findings or recommendations. BE, LLC does not engage legal counsel to assist in our due-diligence process or to review our findings and recommendations.
- An Environmental Site Assessment (Including Asbestos and Mold Assessments).

Documents Reviewed

Sheet No.	Dated	Document Description	Architect/Engineer
Drawings/Plans			
	Undated	Two sets of As-Built Drawings	Ferguson Stevens Associates
	Undated	Floor Plans	
9-1 to 9-13	10/3/56	Mechanical Plans	Ferguson Stevens Associates
Specifications			
No specifications were provided for review.			
Soils Reports			
No soils reports were provided for review.			
ALTA Survey			
No ALTA survey was provided for review.			
Public Records Documents			
	Nov 2000 - Apr 2003	Utility Bills for Water Consumption	City of Albuquerque
	Oct 2000 - Mar 2003	Utility Bills for Gas Consumption	Tiger Natural Gas
	Oct 2000 - Oct 2003	Utility Bills for Electric Consumption	Tiger Natural Gas
	Sep-03	Certificate of Elevator Inspection	GSA

Other			
	Jun-90	Structural Floor Analysis - Additional Storage Loads on 7th Floor	Holt & Associates
	5/24/1991	Indoor Air Quality & Environmental Assessment	HMMI
	1/22/1992	Seismic Analysis with Appendix A-E	BPLW Architects & Engineers
	1/22/1992	Seismic Analysis with Appendix A-J	BPLW Architects & Engineers
	2/14/1992	Structural Floor Analysis Room 1019	BPLW Architects & Engineers
	3/11/1992	Structural Floor Analysis Rooms 5031, 6433	BPLW Architects & Engineers
	11/5/1992	Structural Floor Analysis Final Report	BPLW Architects & Engineers
	12/2/1992	Structural Floor Analysis Rooms 4015, 4015A, 7437, 8017	BPLW Architects & Engineers
	12/23/1992	Floor Load Survey	BPLW Architects & Engineers
	Jan-93	Preliminary Investigation and Analysis	Reaveley Engineers & Associates
	1/13/1994	Results of Lead Testing and Monitoring and Waste Characterization at Basement Firing Range	Loflin Environmental Services
	2/8/1994	Site Investigation for Proposed Structural Retrofit of 8th Floor Slab	BPLW Architects & Engineers
	3/30/1994	Strength Evaluation & Structural Study	Reaveley Engineers & Associates
	4/6/1994	Building Engineering Report (BER)	BPLW Architects & Engineers
	May-94	Building Engineering Report (BER)	BPLW Architects & Engineers
	May-94	BER - Technical Backup - Vol 1	BPLW Architects & Engineers
	May-94	BER - Technical Backup - Vol 2	BPLW Architects & Engineers
	Jan-95	Prospectus Development Study - Appendix D	BPLW Architects & Engineers
	3/17/1995	Prospectus Development Study	BPLW Architects & Engineers
	3/17/1995	Prospectus Development Study - Appendix A	BPLW Architects & Engineers
	3/17/1995	Prospectus Development Study - Appendix E	BPLW Architects & Engineers
	11/10/1995	Asbestos Building Audit Survey	Loflin Environmental Services
	2/14/1996	6th Floor Load Study	BPLW Architects & Engineers
	11/28/1998	Complete Appraisal Report	Commercial Appraisal, Inc.
	12/7/1998	Central Plant Transfer	PNM Energy Partners
	9/17/1999	BPLW Letter on New Technology Options	BPLW Architects & Engineers
	9/27/1999	Demolition Study - 517 Gold Ave	BPLW Architects & Engineers
	10/1/2000	Redesign of Main Entry to the Federal Office Building	Leedshill-Herkenhoff, Inc.
	4/17/2001	Column Capitals Upgrade	BPLW Architects & Engineers
	7/12/2001	Cost Estimates	GSA
	Undated	Action Plan for ACM's and Related Attachments	
	Undated	Radon Testing	
	Undated	Equipment List	

Representation

This property condition assessment report was prepared by BE, LLC for the exclusive use of Spaulding & Slye Colliers and GSA, and their investors, assignees, designees, successors, and assigns. The aforementioned parties intend to rely upon this report as an assessment of the existing physical condition of the subject property for the purpose of deciding whether, and under what conditions, to proceed with a real-estate transaction or renovation of the subject property. This work was performed with sufficient detail and scope to meet the standard due-diligence practices associated with a physical assessment for an institutional investor of real estate in the current marketplace. The work does not constitute or imply a guarantee or warranty of the subject property, building, or improvements. BE, LLC is not responsible or liable for any claims that are associated with the interpretation of the available information.

In the event the client requires this report to be assigned, a new contract will need to be signed between BE, LLC and the Assignee.

IV. CURRENT FUNCTIONAL STATUS AND DEFICIENCIES REPORT

OPC Item #	A. SITE	<i>Condition</i>
	<p>General: The property consists of an office building located in downtown Albuquerque. The site is rectangular in configuration. The building occupies the majority of the site with the exception of 38 feet used as surface parking at the rear of the building and a 2-foot setback along the south property line at Gold Avenue as shown on the site plan. The construction drawings conflict on this setback. Another site plan, Sheet 2-2, shows the south façade built on the property line. The total site area is .98 acres, according to the original site plan provided for review. Adjacent properties are similar high and mid-rise government and private office and commercial uses. Several parking structures are provided within walking distance.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>
A.1	<p>Paving: Asphalt paving is provided in the rear parking lot. The paving is in fair condition. Several potholes were noted requiring repair. Seal coating and restriping of the asphalt is recommended as a part of routine maintenance on a 3-5 year cycle. Concrete walkways are provided along the public streets on the south, east and west elevations. The sidewalks are in good condition. No trip hazards were evident.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Implement a paving maintenance program. This recommendation is based on BE, LLC's observation of the existing paving system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar routine repair and maintenance work. 	<i>Fair</i>
	<p>Parking/Loading: The rear surface parking lot is accessed from the public alley. A total of 22 parking stalls are provided. Many of the spaces are tandem. Four spaces are reserved for use by the disabled. The parking is not adequate for the building, but the building is considered to be a legal non-conforming use in regard to parking. A new office building of similar size would require approximately 514 spaces. These spaces do not meet current UFAS or ADA requirements. A single bay loading dock is provided at the rear of the building, and is accessed from the public alley. The dock area is covered.</p> <p>Recommendations: Refer to Section F. Limited-Disable Access Review, below.</p>	<i>Fair</i>
	<p>Grading and Drainage: The site has adequate slope-to-drain away from the face of the building to the municipal storm water sewer system, in the public street and alley. There was no evidence of ponding water or erosion onsite. Adequate storm water inlets are located in along the streets. There was no evidence of ponding water or erosion on site.</p> <p>The site is basically flat; no retaining walls are provided or required.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>

	Landscaping: The site is an urban site devoid of landscaping.	<i>N/A</i>
	Recommendations: No corrective action is recommended.	
	Amenities/Improvements: The primary amenity of the building is its location in the downtown area adjacent to other public and private buildings, retail shops and restaurants.	<i>Good</i>
	Recommendations: No corrective action is recommended.	
	Signage: A street address number at the main entrance properly identifies the building. The interior building directory signage and tenant signage is dated in appearance and not in compliance with current accessibility standards.	<i>Poor</i>
	Recommendations: Refer to Section F. Limited-Disable Access Review, below.	

OPC Item #	B. STRUCTURAL SYSTEMS	<i>Condition</i>
	<p>Soils/Geotechnical: Subsurface conditions, for the building structure, appear to be adequate considering few settlement cracks were observed. Site structures such as site slabs on ground and site stairs have experienced some settlement. The Geotechnical investigation report was not available for review. The subsurface soil support appears to be functioning adequately.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>
	<p>Foundations: The existing structural drawings indicate that the foundations were designed as thick concrete mat foundation. Previous reports discuss wood piles. A single pile, referred to as a compaction pile, is located at each column on the structural foundation plan. From the visual survey conducted it appears that the foundations are functioning adequately.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>
	<p>Structural Framing: The structural framing system is a conventionally reinforced concrete flat slab with drop panels. The 8-inch thick slabs are supported on square columns are set on a regular 25-foot by 25-foot grid. The column dimensions are reduced in size with the height of the building. The drop panels typically project 4 inches from the underside of the slab. The drop panels are reinforced for shear with a "lampshade" arrangement.</p> <p>Significant deflections (almost 3 inches) were noted in the slabs. This deflection and the resulting cracking of the slabs was extensively studied in the early and mid 90's. Most notable is the 1994 study by Reaveley Engineers & Associates. During this study, extensive physical measurements and material testing was done. In addition, structural analysis and computer modeling of the building was performed on the structural drawings with the results adjusted for the physical field test results.</p>	<i>Poor</i>

	<p>Load capacity deficiencies were discovered during the 1994 study. The study includes several pages that graphically represent the load capacities found at each bay of each floor level. The load capacity deficiencies generally involve inadequate punching shear capacity due to the lampshade shear head reinforcing, the fact that the columns reduce in size with the height of the building, and the poor quality of the concrete used during construction (too high of a water/cement ratio).</p> <p>Load capacities of most floors do not meet GSA load standards and several do not even meet the minimum code required load standards according to the 1994 study. Low-end live load capacities per floor are: 8th (10 PSF), 7th (25 PSF), 6th (40 PSF), 5th (50 PSF), 4th (65 PSF), 3rd thru 1st (80 PSF). GSA standards require 80 PSF and the code requires a minimum of 50 PSF.</p> <p>Recommendations:</p> <p>B.2</p> <ul style="list-style-type: none"> Undertake structural repair to address the floor deflection and floor strength issue to comply with current code and GSA guidelines regarding floor loading. The work includes adding concrete column capitals and reinforcing the slabs with carbon fibers and steel beams. The estimate for this OPC item was provided verbally by Structural Preservation Systems as an "order of magnitude" budgetary quote. <p>B.3</p> <ul style="list-style-type: none"> Level the deflected floors with a lightweight non-structural topping slab leveling fill. The estimate for this OPC item was taken from the 1994 study cost estimate with a 3%/year escalation factor applied. Overhead and Profit from this 1994 study cost estimate was distributed to this line item as a direct ratio of this item to the total items in the estimate. 	
	<p>Seismic/Lateral: The GSA Federal Building is a concrete structure with eight levels above grade and a single basement level below grade. Overall exterior dimensions of the building are approximately 102-feet by 300-feet. The building was completed construction circa 1958. Foundations for the structure are comprised of a reinforced concrete mat slab with thickened sections at column and wall loads. The floors and roof slab are comprised of reinforced concrete two-way flat plates supported to the foundation by concrete columns with drop-caps approximately 8'-4" square. The concrete columns are spaced on a grid of approximately 25-feet by 25-feet and vary in out-to-out dimensions from roof to basement of the structure.</p> <p>The perimeter walls of the basement are constructed of reinforced concrete and act as a simply supported retaining structure supported at the base by the foundation and at the top by the first floor concrete slab. Perimeter walls above grade are constructed utilizing a perimeter concrete frame of slab edge beams and concrete columns with a concrete block in-fill wall and masonry veneer. The concrete block in-fill wall appears to be in contrast with what is depicted on the original construction documents. The original drawings indicate that the in-fill wall is comprised of hollow clay tile with a brick veneer. The mechanical equipment screen at the roof level is comprised of concrete block with a brick veneer with perforations surrounded by a concrete beam top and bottom supported by the building columns projecting through the roof.</p> <p>Horizontal loads generated in an earthquake are resisted by the concrete floor and roof slabs acting as rigid diaphragms that transmit these loads to interior concrete shear walls in both directions based on the individual rigidities of these wall</p>	Poor

elements.

Multiple reports have been prepared regarding the expected performance of this structure when subjected to earthquake forces. The primary concerns when discussing issues related to the seismic performance of the building should be those associated with "life safety" and "collapse prevention". In regards to these two performance levels, the items that are suspect are: the shear capacity of the interior shear walls primarily in the transverse direction but also according to the previous investigations in the longitudinal direction; overturning forces and boundary element capacity at the existing shear walls; the connection of the exterior walls to the building frame; and adequate collector (drag) elements to insure that loads will actually get to the shear walls as well as chord elements at the diaphragms.

It is feasible to rectify the aforementioned items by performing a seismic retrofit on the building. Measures included in a seismic rehabilitation would include the addition of new shear walls in the longitudinal direction in alignment with the interior corridor walls, strengthening of the transverse walls utilizing high strength composite overlays (fiber reinforced polymers-frp), adding collector elements to the underside of the slabs as drag elements, developing boundary elements at the existing shear walls, and checking overturning requirements at the foundation (foundation work is often not required to meet life safety criteria).

Calculations and a computer analysis were not performed as a part of the scope of work outlined for this report. It is recommended that in order to determine the requirements and definitive costs associated with a seismic retrofit for this building, a linear static pushover analysis be performed utilizing the guidelines presented in the National Earthquake Hazard Reduction Program (NEHRP) guidelines as published by the Federal Emergency Management Agency (FEMA) in Publication 356 entitled Pre-standard and Commentary for the Seismic Rehabilitation of Buildings, dated November 2000. While this may entail an additional study, this document is tailored to a performance-based approach to seismic rehabilitation rather than a code compliance base. This may prove to be beneficial in terms of greater leniency when determining the actual level of retrofit required.

It is BE, LLC's experience that buildings of this type would cost between \$15 and \$25 per square foot to rehabilitate. The variation of cost depends on the performance level required, access to the building, hours at which construction can take place, and the salvation or restoration requirements of interior improvements.

The cost of retrofit for buildings of this type varies when considering a number of different factors. If off-hours construction is required the cost for rehabilitation can be dramatically higher. The variation of cost also depends on the performance level required, access to the building, and the salvage or restoration requirements of interior improvements.

Recommendations:

- B.4** • Undertake structural improvements to upgrade the building to current code regarding seismic forces.
- B.5** • Brace the existing exterior masonry walls to the building structure to resist seismic forces as required by current code.

B.6	<ul style="list-style-type: none"> Brace the existing interior masonry walls (the primary corridor walls on each floor level) to resist seismic forces. This recommendation is based on BE, LLC's observation of the existing un-braced block corridor wall construction. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar structural strengthening work. 	
	<p>Probable Maximum Loss (PML):</p> <p>The amount of damage to an individual building subjected to strong earthquake ground shaking will depend on a number of variables, including the intensity and duration of ground shaking, building configuration, structural systems, and materials of construction, structural details including connections, non-structural components and quality of construction. Published seismic risk evaluation methodologies for existing buildings are used as guidelines for estimating seismic damage potential. The performance of any specific structure can, and generally will, deviate substantially from the average values given by empirical loss functions. Therefore, the estimated damage calculated using average loss functions may be increased or decreased to account for specific site and building characteristics.</p> <p>The seismic risk analysis methodology utilized for this evaluation includes four phases: seismic hazard evaluation, structural appraisal, determination of the mean damage estimate per published documents (ATC-13 and NCEER 95-0003), and estimation of the project-specific seismic risk.</p> <p>Seismic Hazard Evaluation</p> <p>The seismic hazard evaluation is a description of potential earthquake effects at the site and a statement of the likelihood of their occurrence. Possible effects include ground shaking, ground rupture, and soil failure such as liquefaction. Building or other improvements on the site do not influence the hazard.</p> <p>Faults in close proximity to the site are evaluated for their potential to produce earthquake ground shaking at the site. Earthquakes with a high probability of occurrence during the life of a building will produce moderately strong ground shaking. Major earthquakes with a small probability of occurrence during the building life are capable of producing very strong ground shaking at the site.</p> <p>Strong ground motion for this evaluation is defined as that ground motion having a probability of exceedance of 10% in a 50-year exposure period, which has an average recurrence interval of 475 years. Stated differently, there is a 90% confidence level that ground motion at the site will not exceed the 475-year level in any 50-year period. This level of ground motion has the same exceedance probability as the seismic zone map published as part of the seismic design provisions of the Uniform Building Code. The 475-year earthquake is sometimes described as the maximum probable or design level earthquake. The above method of determining the estimated building damage based on a specified ground shaking hazard is consistent with the definition for Scenario Loss (SL) presented in the "Standard Guide for the Estimation of Building Damageability in Earthquakes" published by ASTM.</p> <p>Ground motion may be described in terms of the Modified Mercalli Intensity (MMI). The MMI scale is useful for categorizing the performance of structures in past earthquakes as it is based on a qualitative description of people's perceptions and</p>	Fair

the performance of different types of structures during historic earthquakes.

The MMI scale is shown in the following Table:

MODIFIED MERCALLI INTENSITY (MMI) SCALE

INTENSITY	DESCRIPTION
I	Not felt except by a very few under especially favorable circumstances.
II	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing autos may rock slightly. Vibration like passing of a truck.
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing autos rock noticeably.
V	Felt by nearly everyone; many awakened. Some dishes, windows, etc. broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of trees, poles and other tall objects noticed. Pendulum clocks may stop.
VI	Felt by all; many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving autos.
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Disturbs persons driving autos.
IX	Damage considerable in specially designed structures; well designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off of foundations. Ground cracks conspicuously. Underground pipes broken.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water sloshes over banks.
XI	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipe lines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
XII	Damage total. Waves seen on ground surface. Lines of sight and level distorted. Objects thrown up in air.

Fault rupture at the ground surface can cause more severe localized damage than the wide spread damage caused by ground shaking. The location of active surface faults in proximity to the site is an important factor in the earthquake hazard evaluation. California's Fault Rupture Hazard Zones, first established in 1972, are identified along known active faults to define those areas within which special

geologic studies are required prior to building new structures intended for human occupancy. Effects of ground rupture due to faulting are considered when estimating the degree of earthquake damage at existing structures located within a fault or drag zone.

Soil effects that may be caused by an earthquake are seismically induced settlement, liquefaction (loss of soil strength in saturated soil deposits during strong ground shaking), and slope failure (landslides or local failures triggered by earthquakes). Loss of foundation support and excessive settlement of foundations may result from the soil related earthquake hazards, resulting in an increase in the amount of seismic-related damage a building may incur.

Site-Specific Seismic Hazard

Major faults that influence the location of interest are listed below. Approximate distances from the fault to the site are also shown. This list is by no means exhaustive. Instead it is intended to indicate the potential for earthquakes in close proximity to the site.

Sandia Fault	5 miles
East Paradise Fault Zone	7 miles
Rincon Fault	10 miles

Note that these faults are distinguished by how recently they are understood to have displaced (ruptured). Geologists and seismologists that study materials displaced by the fault to determine the approximate date of different movements develop this information. Unfortunately, seismic events are not restricted to these planes of displacement, but also emanate from deeper sources that have little or no expression at the earth's surface. The 1994 Northridge earthquake was produced by such a source.

The site is located in seismic zone 2B as mapped by the Uniform Building Code, 1997 edition.

Fault Rupture Hazard

Rupturing faults from shallow earthquakes often displace the soils overlaying the rupturing plane, causing fissures, offsets and deformation zones. These conditions can result in the instantaneous destruction of foundations, roadways, walkways, etc.

A search of available maps for special studies zones shows that this property is not situated within or in close proximity to a special studies zone.

Soil and other Earthquake Hazards

Seismic energy is transmitted by the earth's brittle crust and then upward through the soil layers on top of the earth's crust until it reaches the surface. According to the stratigraphy of the soils beneath the location of interest, arriving energy waves may be amplified thereby increasing the intensity of shaking at the surface. In general, deep alluvial soil, thick muddy deposits, and areas of un-engineered fills tend to significantly amplify earthquake energy. Firmer soils, or shallow alluvial soils tend to only moderately amplify earthquake energy. Hard soil or rocky outcroppings tend to produce little or no amplification of earthquake energy.

Examination of regional soils maps indicates that the location under investigation is situated on hard soils. These soils are not expected to produce any significant

amplification effects.

Soil liquefaction is a condition where the ground loses its bearing capacity. It is often likened to a "quick sand" effect, where the soils temporarily behave as a fluid material. A number of effects are associated with this including loss of bearing capacity, sand boils, lateral flows, and permanent ground deformation.

Loose, poorly graded sands, usually within 30 or 40 feet below the surface, are the major factors in liquefaction incidences. However, these soils alone are not enough to incite liquefaction. The coincidence of a large magnitude earthquake, significant accelerations arriving at the location, and a water table that is high enough to saturate the poor soils is usually necessary for liquefaction occurrence.

Our review of regional maps indicates that this location is associated with low liquefaction susceptibility, but there are significant variations in liquefaction susceptibility within map zones. High liquefaction susceptibility is associated with increased damage levels in catastrophic earthquake scenarios.

Slopes that are susceptible to landslides and/or mudslides are often destabilized during severe earthquake shaking. Predicting this potential is difficult in all but the most precarious physical situations. Slope stability, and a slope's performance during severe shaking is influenced by many factors, including the stratigraphy of soils, the angle of incidence of the slope, vegetation, soil drainage, and other factors.

Estimation of Seismic Risk

The seismic hazard evaluation and structural appraisal are combined to estimate the risk of earthquake damage at the project. Seismic risk is characterized in terms of Probable Maximum Loss (PML). The PML is our best estimate of the damage due to ground motion with a 10% probability of exceedance in a 50-year period and is expressed as a percentage of building replacement cost. The following table is provided as an aid to interpreting the level of building damage represented by the PML:

PML VALUE	DAMAGE CONDITION	DESCRIPTION OF EXPECTED DAMAGE	FUNCTION LOSS POTENTIAL
0 to 1%	Slight	Limited localized minor damage not requiring repair.	None
1 to 10%	Light	Significant localized damage of some non-structural components generally not requiring structural repair.	Low
10 to 30%	Moderate	Significant localized damage of many components warranting structural repair.	Medium
30 to 60%	Heavy	Extensive structural and non-structural damage requiring major repairs.	High
60 to 100%	Major	Major widespread damage that may result in demolition or long-term shutdown for repair.	Very High

This property is situated in a seismically active region. Ground motions were estimated at a single risk level corresponding to the 99.8th percentile of the ground motion distribution (or a return interval of 475-years). This is a standardized risk level, often used by property owners in gauging the severity of

	<p>earthquake motions at appropriately conservative risk levels. It has a probability of 10% that the estimate of ground motion will be exceeded in the next 50 years.</p> <p>At the 99.8th percentile, the mean estimate of ground acceleration is 0.12g. The corresponding Modified Mercalli Intensity (MMI) estimate for this acceleration level is 7.3. Please note that these peak ground acceleration (pga) and MMI estimates have not been adjusted for the effects of soil on arriving earthquake waves. Based on this level of ground shaking the mean structural losses (PML₅₀) due to an earthquake are estimated to be 10% for the 8-story office and are 20% for those losses with a 90% confidence level (PML₉₀).</p> <p>Our assessment of the potential seismic damage is for the as-built building. The PML includes consideration of the local site conditions and seismicity damage expected. The above damage estimate does not include possible secondary damage resulting from pipe failures, fire, or rescue and clean-up operations following an earthquake. The PML also does not include losses associated with loss of income or relocation of occupants.</p> <p>Recommendations: Refer to Seismic section, above.</p>	
	Other Structures: None.	N/A
	Recommendations: Not applicable.	

OPC Item #	C. BUILDING EXTERIOR	<i>Condition</i>
	<p>Exterior Walls: The exterior is symmetrically composed and similar at all four elevations. The main façade material is brick. Projected concrete eyebrows occur between each floor. There are vertical bands of windows and building panels. A combination of granite, painted metal, and stucco along with glazed windows and doors occur at the ground floor. WJE observed the building via binoculars. Approximately ½ of the north elevation was observed close-up via a personnel lift. PCS Building Services, LLC, performed contractor support for close-up observations. Mr. Waldo Griego of GSA reported that there were no known existing building leaks from the exterior walls. It appears that the façades have been repaired recently, most likely to address water infiltration. Interior damage observed by WJE along the bottom of the jams adjacent to the windows appears to be dry. This damage may have occurred prior to the building being re-pointed and sealed. The exterior facades are dated in appearance.</p> <p>Exterior walls are composed of brick and concrete masonry unit (CMU) back-up wall. The drawings reviewed indicate that the brick is bonded to the back-up CMU with a 3/8-in. collar joint filled with mortar. Articulated concrete eyebrows occur at each floor line. Building panels, indicated on the drawings as porcelain enamel panels, are located directly under the windows between the 2nd and 8th floors. Granite panels and painted metal panels are located at the ground floor around all four elevations of the building. Exterior roof top bulkhead and screen walls are brick with CMU back-up.</p> <p>Brick mortar joints throughout the exterior walls are sound and may have been</p>	<i>Fair</i>

	<p>recently re-pointed. A brick spall was observed at one location. Portions of the sloped mortar wash at openings in the rooftop screen walls were cracked.</p> <p>The concrete eyebrows have diamond patterns and exposed metal embedments under each window. The concrete has been painted. The drawings indicate that there is a sloped mortar wash on top of the eyebrows to divert water off of these horizontal projections. Some cracking was observed at the top edges of the eyebrow at some locations. The distress may be due to deterioration of the sloped mortar wash or corrosion of underlying concrete reinforcement.</p> <p>Several of the porcelain building panels, which are indicated on the drawings to be ¼-inch thick, have cracked. Most of the cracked building panels were observed at the south elevation. The building panels are restrained horizontally against the brick. The cracking has been most likely caused by thermal stresses within the panel.</p> <p>Some shrinkage cracks were observed in the stucco at the north elevation. Anomalies were not observed in the granite panels at the ground floor. The granite panels remain in good condition.</p> <p>Recommendations:</p>	
C.7	<ul style="list-style-type: none"> • Provide an allowance to undertake minor future tuck repointing of the masonry walls. (Not required if the option to install a new curtainwall system is implemented.) This recommendation is based on BE, LLC's observation of the existing exterior wall system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar routine repair and maintenance work. 	
C.8	<ul style="list-style-type: none"> • Provide an allowance to perform general masonry repairs to the rooftop screenwall masonry walls to address caulking, the joints, and step cracks. This recommendation is based on BE, LLC's observation of the existing paving system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar routine repair and maintenance work. 	
C.9	<ul style="list-style-type: none"> • As an improvement to the appearance and the leaseability of the building remove the existing masonry walls and install a modern insulated, tinted glass curtainwall system with a stone base. The estimated recladding work is based on preliminary design criteria developed by WJE utilizing a 13-inch deep curtain wall system with blast resistant glass. The preliminary opinion of construction cost was provided by a curtain wall manufacturer based on this preliminary design criteria utilizing a curtain wall system tested and approved for use in other GSA buildings. A local curtainwall contractor, Southwest Glass & Glazing, Inc provided a cost estimate; however, this estimate did not allow for a 13-inch-deep system, and was therefore, not included in the Opinions of Probable Costs spreadsheet. 	
C.10	<ul style="list-style-type: none"> • In lieu of removing the existing masonry walls and installing a modern insulated, tinted glass curtainwall system above, install new ribbon windows and retain the brick wall below the sill level. Seismically strengthen the masonry wall as required. A local curtainwall contractor, Southwest Glass & Glazing, Inc verified this cost estimate. 	
C.11	<ul style="list-style-type: none"> • Install new, sloped metal covers at openings in the rooftop screen wall. 	
C.12	<ul style="list-style-type: none"> • Patch cracked eyebrows in the exterior walls. (Not required if the option to install a new curtainwall system is implemented.) 	
C.13	<ul style="list-style-type: none"> • Install new metal panels over existing porcelain building panels. (Not required 	

C.14	<p>if the option to install a new curtainwall system is implemented.)</p> <ul style="list-style-type: none"> Repair cracked stucco. (Not required if the option to install a new curtainwall system is implemented.) 	
C.15	<p>Exterior Glazing: The glazing consists of ¼-inch-thick, single pane, aluminum windows. All of the windows between the 2nd and 8th floors are pivot windows. Windows at the ground floor are a combination of a pivot window between two fixed windows. A glazing film has been applied to the inside face of the glass at the east, south, and west elevations. No film has been applied to the glass at the north elevation. The windows appeared to be weeped to the exterior. All of the pivot windows have been fixed shut. The interior hardware has been removed and all of the joints between the sash and the window frame have been sealed from both the exterior and the interior. It also appears that the elastomeric sealant has been recently installed around the exterior perimeters of the windows. The window frames and glass appear to be sound. All elastomeric sealant also appears sound. The interior glass film was torn and delaminated at several locations.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Provide an allowance to wet-seal the perimeter glass-to-metal and metal panel joints, and to replace the perimeter sealant between the windows and the masonry. (Not required if the option to install a new curtainwall system is implemented.) This recommendation is based on WJE's detailed observation of the existing curtain wall system, conducted from a man-lift. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar routine repair and maintenance work (estimated at \$4 per linear foot). 	<i>Fair</i>
	<p>Exterior Doors: Exterior entrance doors at the east, south and west elevations are glazed, aluminum doors. The glass is single pane and the frames are hollow. Rear service doors at the north elevation are hollow metal aluminum doors. All of the doors were judged by WJE to be in operable but dated condition.</p> <p>Recommendations: The exterior doors should receive regular maintenance.</p>	<i>Fair</i>
C.16	<p>Exterior Balconies/Soffits: No exterior balconies are provided. The primary exterior soffits at the entrances consist of suspended painted plaster on metal lath. The plaster appears to be in good condition.</p> <p>Metal soffits occur under the ground to the 2nd floor concrete eyebrows at all four elevations of the building. The soffit was generally in fair condition. A few potentially loose sections of soffit were observed. One section of damaged metal fascia was observed above the east entrance to the building.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Secure loose sections of soffit & repair fascia at the main entrance. (Not required if the option to install a new curtainwall system is implemented.) 	<i>Good</i>

	Exterior Stairways: There are no exterior stairways.	<i>N/A</i>
	Recommendations: Not applicable.	

OPC Item #	D. ROOFING	<i>Condition</i>
	Access: The roof is accessed from one fire egress stair and a center ship's ladder. Recommendations: No corrective action is recommended.	<i>Good</i>
	Construction: The roof construction consists of the concrete slab. Recommendations: Refer to the Membrane section, below.	<i>Good</i>
D.17	Membrane: The membrane is a built-up modified membrane with a mineral cap sheet. The membrane was reported to be approximately 10 years old. The original roof membrane was reportedly removed. No documentation of the roof membrane age, or warranty was provided for review. No roof cores were taken to verify the membrane construction. The membrane is in fair condition and has a remaining life expectancy of 5 to 7 years. Immediate repairs are required to remove blisters in the membrane. Annual inspection and maintenance should be an anticipated expense. Recommendations: <ul style="list-style-type: none"> Undertake immediate repairs to the roof membrane where bubbled. Provide an annually increasing roof inspection and maintenance allowance. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	<i>Fair</i>
D.18	<ul style="list-style-type: none"> Anticipate removal and replacement of the roof membrane and rigid insulation within the next 5-8 years. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. (Estimated to be \$10 per sf.) 	
D.19	<ul style="list-style-type: none"> Engage a roofing consultant to specify the new membrane, obtain bids, and observe the membrane installation. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by roofing consultants for similar work. 	
	Insulation: No roof cores were taken to verify the roof construction. Recommendations: No corrective action is recommended.	<i>Unknown</i>
	Base/Wall Flashing: The modified membrane turns up the inside face of the perimeter parapet walls and terminates under the pre-finished metal coping or flashing. The flashing is in fair condition. The metal counterflashing appears to be stainless steel and is in good condition.	<i>Fair</i>

	Recommendations: Refer to the Membrane section, above.	
D.20	<p>Drainage: The roof has a minimal slope-to-drain to the interior roof drains. Overflow scuppers are not provided. The UBC does require a secondary drainage system. The placement, number, and size of the roof drains appear to be adequate.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Install overflow drains to the ten roof drains as required by current code. This is not a retroactive code requirement but is recommended. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	<i>Fair</i>
	<p>Penetrations: The number of roof penetrations has been kept to a minimum and consists of vents and mechanical equipment platforms. The penetrations are properly flashed or pitch pockets are provided.</p> <p>Recommendations: Refer to the Membrane section, above.</p>	<i>Good</i>
	<p>Skylights: No skylights are provided.</p> <p>Recommendations: Not applicable.</p>	<i>N/A</i>
	<p>Expansion Joints: No expansion joints were visible through the roofing membrane. No expansion joints are required for this size roof.</p> <p>Recommendations: Not applicable.</p>	<i>N/A</i>
	<p>Ventilation: There are no attic areas requiring ventilation in the subject building.</p> <p>Recommendations: Not applicable.</p>	<i>N/A</i>
	<p>Coping: Pre-finished aluminum coping is provided on top of the perimeter parapet walls and the penthouse screen wall. The coping is in good condition.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>
	<p>Warranties: No roof warranty was provided for review. It is anticipated that the roof warranty has expired. A ten-year warranty should be obtained when the roof is resurfaced.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Fair</i>

OPC Item #	E. BUILDING INTERIORS	<i><u>Condition</u></i>
	<p>Building Code Compliance: The building was constructed in general accordance with the requirements of Uniform Building Code (1955) in effect at the time of</p>	<i>Fair</i>

construction. The building is protected by an automatic fire sprinkler system. The occupancy classification of the building is B-Business. The construction classification is Type 1 Fire resistive. Buildings of this construction classification and occupancy are permitted by code to be of unlimited height and area. Structural components in buildings of this occupancy classification and construction classification are required to have the following fire-resistive ratings:

Type I Fire Resistive Construction	
Structural Component	Fire Resistive Rating
Exterior Walls- nonbearing	Noncombustible
Fire Enclosure of Exits	2 hours
Shafts	2 hours
Exit Corridors	1 hour
Columns, Girders, Trusses	3 hours
Floor Construction	2 hours
Roof Construction	2 hours

The building generally appears to comply with the above criteria. No fireproofing is provided or required on the concrete framing system. Two remote means of egress are provided to exit the building at all floor levels. The egress stairs exit directly to the exterior at grade level. The fire exit stairways are 2-hour fire rated assemblies.

Openings were evident above the corridor ceiling in the required 1-hour fire resistive corridor walls. The walls are masonry construction but do not extend full height to the underside of the slab above. The original 1-hour fire resistive corridor ceiling has been replaced with a non-rated suspended ceiling system. As a part of the proposed renovation, a 1-hour corridor construction would be required.

The building is classified as high-rise construction. It is anticipated the building will need to meet the current code in this regard as part of a major renovation. Refer to Section J. Fire/Life Safety for a discussion of this issue. One requirement is for the upper level elevator lobbies to be separated from the egress corridors by 1-hour fire resistive construction. No lobbies are currently provided. (Refer to Section J., Fire/Life Safety, below.)

Recommendations:

- E.21**
- Provide 1-hour fire rated corridor construction on all floor levels. Install a fire rated ceiling system or extend the corridor walls full height. This is a UBC code requirement. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work.

Common Area Finishes

Ceilings: The typical ceiling finish in the common corridors consists of 2-foot by 2-foot lay-in acoustical ceiling panels suspended in a pre-finished T-Bar frame. The ceiling height is typically 8' 0" inches above the finished floor. The original fire resistive plaster ceiling has been removed from the corridors as a part of a previous renovation project, perhaps to install the fire sprinkler system. The suspended ceiling tile is generally in good condition. The original painted plaster ceilings are provided in the toilet rooms. The ceiling height in the toilet rooms is

Good

	9'-0". The lobby ceiling is 2' x 2' lay in ceiling tile at 8'-10" in height.	
E.22	<p>Recommendations:</p> <ul style="list-style-type: none"> Salvage the lay in acoustical ceiling system and metal grid. The system is relatively new and can be stored offsite or in the basement and reused. It is estimated that at least 75% of the tile is reusable for another GSA building. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	
E.23	<ul style="list-style-type: none"> Provide an allowance to refurbish the finishes in the common area corridors on each floor level. Estimate assumes much of the suspended ceiling system can be reused. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work and verification of the \$38 per sf unit rate was obtained from Spaulding & Slye. 	
	<p>Walls: The wall finishes in the common corridors are typically painted plaster over masonry block construction. The corridor walls typically do not extend full height, and therefore do not provide 1-hour fire resistive construction.</p> <p>The toilet rooms typically have both ceramic tile walls with ceramic tile base, and painted plaster walls. The ceramic tile is dated in appearance.</p> <p>The walls in the entry lobby are solid full-height granite wall panels. Painted concrete block walls are utilized in the basement. A pedestrian tunnel connects below Gold Avenue to Building 500. Leaks were evident in the tunnel.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Provide an allowance to refurbish the toilet rooms on each floor level. The fixtures and finishes are in poor, dated condition. Install new modern class A finishes. Undertake modifications to fully comply with the ADA and UFAS, whichever is the most restrictive. Provide an allowance to modernize the lobby interior, including creating a two story atrium open to the second floor lobby, and a curtain wall to the exterior. Leedshill-Herkenhoff, Inc., studied this recommendation in October 2000. No cost estimates were provided in this study. Repair the leaks in the basement tunnel, which connects the two buildings below the street. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	<i>Fair</i>
E.24		
E.25		
E.26		
	<p>Floors: The floors in the common area typically consist of commercial-quality glue-down carpeting. It is typical that vinyl asbestos floor tile is provided below the carpeting. Ceramic floor tile is provided in the toilet rooms. The ceramic tile is dated in appearance. The interior floor finishes are generally in poor condition. Refurbishment should be anticipated prior to leasing. The floor finish in the lobby is the original terrazzo. The terrazzo is in good condition.</p>	<i>Poor</i>

E.27	<p>Recommendations:</p> <ul style="list-style-type: none"> Remove all suspect asbestos, lead and other hazardous materials prior to renovation, identified in the previous environmental reports. Cost estimate from previous R & H Associates report dated, 1999, with escalation at 3% per year is \$83,403 for lead abatement: \$3,821 for PCB's and florescent tube abatement: \$24,310 for specifications and monitoring and \$989,651 for asbestos abatement for a total of \$1,101,185. However, a "bid" was provided by Coronado Wrecking & Salvage (SW Abatement) on January 15, 2004 to remove these suspect materials in the amount of 975,820. BE, LLC proposes to use this bid plus the bond rate of 2.5% (\$1,000,215) vs. the engineer's estimates (inflated to date). 	
	<p>Doors and Frames: The corridor entry doors are typically solid-core painted wood doors set in a painted metal frames. The doors are typically 3 feet in width and 7 feet 0 inches in height. The doors are typically provided with lever handles. Door closers are typically not provided. The doors are in good, operable condition. It was noted that many of the tenant entry doors do not have the required C label "UL" fire resistive listing.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The corridor doors and frames should be removed and replaced as a part of the proposed tenant improvement work included in Item E.28, below. 	Fair
E.28	<p>Tenant Area Finishes</p> <p>Ceilings: The typical tenant ceiling consists of standard commercial-quality 2-foot by 4-foot lay-in acoustical ceiling system with a pre-finished aluminum T-bar grid. The typical ceiling height is 7 feet 10 inches to 8 feet 3 inches. The ceiling system is in generally good condition. The original suspended fire resistive plaster ceiling system remains above the new suspended system in an estimated 50% of the tenant area. This ceiling will need to be replaced to address environmental concerns and to install the new HVAC system. This would also permit the new ceiling system to be raised in height, which is desirable for new office tenancy.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Provide an allowance to refurbish the finishes in the tenant spaces on each floor level. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in the previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work and verification of the \$35 per sf unit rate was obtained from Spaulding & Slye. 	Fair
E.29	<p>Walls: The typical interior tenant walls consist of painted gypsum board installed over metal stud framing. The tenant walls typically stop at the suspended ceiling level. The tenant demising walls typically extend full height to the underside of the floor above.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Demolish all the interior partition walls as part of the recommended structural repairs and floor leveling fill, and in other areas to accommodate future tenants. Coronado Wrecking & Salvage provided a "quote" on January 15, 2004 to demo the interior partitions and finishes, in the amount of \$954,460 (including the bond rate of 1.8%). BE, LLC proposes to use this bid. 	Fair

	<p>Floors: The tenant floors typically consist of commercial-quality glue-down carpeting. The carpeting is typically in poor and dated condition. In some locations the carpeting has been removed and vinyl asbestos floor tile is visible. It is believed that asbestos floor tile is typically provided below the carpeting throughout the tenant areas. Refer to the previous asbestos assessment reports.</p> <p>Recommendations:</p> <ul style="list-style-type: none">Remove the carpeting and abate the vinyl asbestos floor tile. Install new carpeting as part of the tenant improvement work included in Item E.28, above.	Poor																																																
	<p>Doors and Frames: The typical tenant doors consist of solid-core or hollow core painted wood doors set in painted metal frames. Each door leaf is typically 3 feet in width. The doors are typically 7 feet 0 inches in height. The doors and frames are in fair to good condition.</p> <p>Recommendations:</p> <ul style="list-style-type: none">The cost of salvaging the doors and frames for reuse is not believed to be economical. New doors and frames will be provided as a part of the proposed tenant improvement work included in Item E.28, above.	Fair																																																
	<p>Building Area Calculations: The calculation of building areas was not included in the scope of services. A summary of the reported area calculations (per Charles Rand, Asset Manager Report, dated 6/4/01) for the building are as follows:</p> <table><tr><th>Floor Level</th><th>Reported Gross Area (sf)</th><th>Reported Floor Rentable Area (sf)</th><th>Reported Floor Usable Area (sf)</th></tr><tr><td>Basement</td><td>30,339</td><td>29,253</td><td>5,319</td></tr><tr><td>First Floor</td><td>29,835</td><td>27,545</td><td>20,957</td></tr><tr><td>Second Floor</td><td>30,399</td><td>29,253</td><td>26,836</td></tr><tr><td>Third Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Fourth Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Fifth Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Sixth Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Seventh Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Eighth Floor</td><td>30,399</td><td>29,253</td><td>23,542</td></tr><tr><td>Penthouse</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Totals</td><td>272,967*</td><td>261,569</td><td>194,364</td></tr></table> <p>*Corrected total</p> <p>Recommendations:</p> <ul style="list-style-type: none">There is no consistency in the reported gross and rentable areas of the building based on the previous reports. The report noted above is the most detailed and references the BOMA Standard. It is recommended a detailed building area study be conducted.	Floor Level	Reported Gross Area (sf)	Reported Floor Rentable Area (sf)	Reported Floor Usable Area (sf)	Basement	30,339	29,253	5,319	First Floor	29,835	27,545	20,957	Second Floor	30,399	29,253	26,836	Third Floor	30,399	29,253	23,542	Fourth Floor	30,399	29,253	23,542	Fifth Floor	30,399	29,253	23,542	Sixth Floor	30,399	29,253	23,542	Seventh Floor	30,399	29,253	23,542	Eighth Floor	30,399	29,253	23,542	Penthouse	0	0	0	Totals	272,967*	261,569	194,364	N/A
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Totals	272,967*	261,569	194,364																																															

OPC Item #	F. LIMITED DISABLED-ACCESS REVIEW	<i>Condition</i>
	<p>General: The building was constructed prior to the implementation of current disabled access regulations including the Americans with Disabilities Act (ADA), 1990, and the Uniform Federal Accessibility Standard (UFAS). GSA requires the implementation of UFAS or the ADA, when the requirements of the ADA are more restrictive.</p> <p>The ADA regulations (Title III) are applicable to new construction and to existing buildings that are renovated, and are applicable retroactively to existing buildings defined as "public" accommodations. The common areas of Office Buildings are considered to be areas of public accommodations, as defined by the regulations. Modifications have been made to the building as part of previous renovation work to provide a degree of access compliance. The building is not in full compliance, and corrective work is required.</p> <p>Title I of the ADA states that it is the responsibility of the employer to make the disabled employee's workplace accessible. The ADA is not a building code. The ADA is not implemented as part of most local building permit applications. Enforcement is accomplished through litigation on behalf of disabled individuals who believe that they have been discriminated against. All architectural barriers in places of public accommodation should have been eliminated under the act as of January 26, 1992.</p> <p>The ADA regulations include priorities for barrier removal in existing facilities as follows:</p> <ol style="list-style-type: none"> 1. Accessible Entrance: Provide access that enables disabled individuals to enter the facility from the public sidewalks, parking, or public transportation. 2. Access to Goods and Services: Provide access to areas where goods and services are made available to the public. 3. Usability of Restrooms: Provide access to restroom facilities. 4. Additional Access: Provide access to goods, services, facilities, privileges, advantages, or accommodations. <p>Recommendations: Refer to the recommendations that follow in this section.</p>	<i>Fair</i>
	<p><u>Site Access</u></p> <p>Parking: The four existing spaces reserved for use by the disabled do not meet the current requirements. The code requires one space designated as "van" accessible. The parking is provided at the rear entrance door at the loading dock. This is the only parking available on site. The number of accessible spaces is based on a percentage of existing spaces.</p>	<i>Fair</i>

F.31	<p>Recommendations:</p> <ul style="list-style-type: none"> Provide 1 van accessible parking stall in the surface parking lot. The existing stalls reserved for use by the disabled are not fully compliant. This recommendation is based on BE, LLC's observation of the existing parking. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	
	<p>Entry Path: No means of access is provided into the main entrance doorway at Gold Avenue. It is recommended that an interior ramp or wheelchair lift be installed at this location. A ramp would require the concrete slab to be cut and removed. In addition, an accessible ramp is provided from the rear parking lot to the loading dock level (first floor level). An electrically operated wheel chair lift is provided at the rear of the building. This is not considered to be a primary entrance into the building as required by current code. Curb cuts are provided in the sidewalks at the public street intersections.</p>	<i>Poor</i>
F.32	<p>Recommendations:</p> <ul style="list-style-type: none"> Provide a ramped access into the elevated lobby level from Gold Avenue or a wheel chair lift. The lift at the loading dock door is not considered to be located at a primary public entry. 	
	<p>Entry Doors: The primary entrance doors, which lead into the ground floor level lobby, are sufficiently wide to allow access. No automatic door operators are provided on the exterior or interior vestibule doorways (these are not required by the ADA). A set of steps is located inside of the main entrance vestibule. No ramps are provided at the two remote egress stairs to grade level.</p>	<i>Poor</i>
F.33	<p>Recommendations:</p> <ul style="list-style-type: none"> Provide egress ramps from the two remote fire egress stairs to grade level. This recommendation is based on BE, LLC's observation of the existing conditions. This issue was not discussed in any previous reports provided for review. The estimated cost is based on historic quotes provided by contractors for similar work. 	
	<p>Interior Access</p> <p>Toilet Rooms: Some of the common toilet rooms were modified to comply with disabled access in effect at the time of the renovation. Enlarged side-transfer toilet stalls are provided in the men's and women's rooms on levels 1, 5, 6, & 8. Narrow old ANSI conforming stalls are located on levels 7. The toilet rooms on the other floors are original and were not modified. In addition accessible drinking fountains are not provided on each floor.</p>	<i>Poor</i>
F.34	<p>Recommendations:</p> <ul style="list-style-type: none"> Fully accessible toilet rooms should be provided on all floor levels as a part of the proposed renovation. 	
F.35	<ul style="list-style-type: none"> Provide accessible drinking fountains on all floors. 	
	<p>Circulation: No changes in floor level occur. The interior building signage is not in compliance with UFAS or ADA.</p>	<i>Fair</i>

F.36	Recommendations: <ul style="list-style-type: none"> • Provide a new building signage system. 	
	Interior Doors: The interior doors are sufficiently wide to provide access to the disabled. Proper clearances are typically provided at the latch sides of the doors. The door hardware is typically lever knob. Recommendations: <ul style="list-style-type: none"> • New doors and door hardware will be provided as a part of the proposed tenant improvement work included in Item E.28, above. 	<i>Fair</i>
	Elevators: The passenger elevators provide access to all eight-floor levels and the basement. The elevators were recently modified to provide access to the disabled. Recommendations: Refer to Section K. Vertical Transportation, below.	<i>Good</i>
	ADA, Fire/Life Safety General: The fire alarm strobe lights are generally in conformance with the ADA requirements. Refer to Section J. Fire/Life Safety Systems, below, for a discussion of additional strobe lights in toilet rooms and corridors. Some of the lights are not in compliance with the current standard. It should be noted that rescue assistance areas are not provided in the fire egress stairways. This requirement is not retroactive to existing buildings. The ADA does not require rescue assistance areas in buildings protected with an automatic fire sprinkler system. Recommendations: Refer to Section J. Fire/Life Safety Systems, below.	<i>Fair</i>

OPC Item #	G. HVAC	<u>Condition</u>
	Cooling Systems: The cooling system for 517 Gold Avenue consists of chilled water from the central plant located in the basement being pumped to the air-handling units on each floor. The chillers reject their heat to the condenser water loop. The condenser water rejects the building's heat to the atmosphere via the cooling towers on the roof. The chillers provide chilled water for 517 Gold Avenue and for 500 Gold Avenue. The total capacity of 1,200 tons of cooling is only partially used by 517 Gold Avenue. Based on 194,364 usable square feet and providing 1 ton of cooling for every 400 useable square feet, 517 Gold Avenue would require approximately 500 tons of the 1,200 tons total. The remainder is assumed to be required by 500 Gold Avenue. The Air handlers on each floor are constant volume units. They have steam and chilled water coils. The air handlers are original. However, many of the parts such as valves and fan motors have been replaced over the years. The damper actuators observed during the site visit were fairly new and in good condition. The air-handling units are sized at 15,000 cfm each for a floor total of 30,000 cfm, which is approximately 1 cfm per square foot.	<i>Fair</i>

	<p>The chillers were installed in 1992 along with the cooling towers and circulation pumps. These components of the chilled water plant appeared to be in good condition and well maintained at the time of the site visit. However, chillers and cooling towers require major maintenance on a 10-year schedule to extend their serviceable life. Funds should be budgeted for their overhaul. The pumps are expected to require routine maintenance over the next 10 years.</p> <p>The AHU's are original (1958) making them approximately 46 years old. These units are very rugged and as long as parts are available can be maintained. The AHU's observed had new damper actuators, chilled water valve, steam valves, pleated filters and connections to the Building Automation System. Only the coils, fan housing and unit housing appear to be original. The coils are clean and the desert like environment has helped to extend their life.</p> <p>The existing constant volume variable temperature system is dated and does not comply with GSA document PBS-PQ100.1 Chapter 5 for the recommended types of HVAC systems.</p> <p>The GSA requires energy efficient systems such as a variable-air-volume system. It is recommended that the airside of the cooling system (AHU's and ductwork) be replaced with a new energy efficient variable-air-volume system to comply with PBS-PQ100.1. This would be an upgrade improvement to the building and is anticipated to be part of a larger renovation.</p> <p>Recommendations:</p>	
G.37	<ul style="list-style-type: none"> Upgrade the HVAC System on the 8 floors. Remove the existing air handlers and ductwork and replace with new packaged variable air volume units, ductwork and VAV terminal units. Remove the perimeter radiator system. Bring the airside portion of the HVAC system up to GSA standards per PBS-PQ100.1 Chapter 5. This is expected to cost approximately \$1,313,802. These costs do not include architectural costs. It is assumed that the HVAC upgrade would be part of a larger renovation. This recommendation is based on BE, LLC's observation and comparison to Chapter 5 of the GSA requirements in the PBS-PQ100.1. The cost estimate for this recommendation was developed with the assistance of a local contractor (MBI of Albuquerque). 	
G.38	<ul style="list-style-type: none"> Budget funds for the 10-year overhaul of the chillers. Centrifugal chillers require a major maintenance approximately every 10-years to ensure their efficiency. This recommendation is based on BE, LLC's observation and industry standards for maintenance. Most manufacturers recommend a 10-year overhaul. This issue was not mentioned in any of the previous reports. 	
G.39	<ul style="list-style-type: none"> Budget funds for the 10-year overhaul of the cooling towers. Cooling towers require a major maintenance approximately every 10-years to ensure their efficiency and to extend their serviceable life. This recommendation is based on BE, LLC's observation and industry standards for maintenance. Most manufacturers recommend a 10-year overhaul. This issue was not mentioned in any of the previous reports. 	
	<p>Heating Systems: There are 5 boilers generating 15-psi steam. Steam is provided to the perimeter radiators, air handling unit coils and the outside air pre-heat coils in the 517 Gold Building. These boilers also provide steam to a steam-to-hot water converter so that hot water can be supplied to 500 Gold. The boilers also provide steam to 421 Gold and 123 Fourth Street buildings. Each boiler is rated at 4.5 MMBTUH each. These boilers are fairly new; they were installed</p>	<i>Fair</i>

	<p>11/30/98. The operating engineer reports that they perform extremely well and he does not have to increase the pressure above 7 psi to maintain temperature. The perimeter radiators and the steam coils at the radiators are original. The preheat coils at the outside air intake are newer.</p> <p>The boilers are expected to only require routine maintenance over the next 10 years. The radiators and the steam coils in the AHU's are approximately 46 years old. There were no reported leaks or issues with either. The radiators have manual controls. An upgrade improvement to the existing system would be to provide automatic controls for the radiators. This would allow for more precise control of the heating and remove some "human error" from the equation.</p> <p>It is recommended that the heating system be replaced as part of the overall upgrade improvement recommended in the cooling section. The steam coils would be replaced by hot water coils located at perimeter variable air volume boxes. These costs are included in the overall upgrade costs.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Upgrade the existing system. Install <i>Danfoss</i> valves on the perimeter radiators to provide automatic control. Refer to the Cooling section, above, for an upgrade improvement to the system as part of a total renovation. This recommendation is based on BE, LLC's observation of the existing system. This issue was not discussed in any previous reports provided for review. The cost estimate for this recommendation was developed with the assistance of a local contractor (MBI of Albuquerque). 	
<p>G.41</p>	<p>Ventilation Systems: The AHU's on every floor distribute the air at a constant volume to the occupied spaces. The AHU's are rated at 15,000 cfm each. There are two AHU's per floor. Each floor has approximately 30,000 cfm of air, which is approximately 1 cfm per square foot. This is marginal by current standards. Current standards would require approximately 1.3 to 1.5 cfm per square foot. Previous attempts to increase the cfm were unsuccessful due to the size of the current ductwork. An upgrade option to consider is to replace the ductwork and speed the fans up to provide more airflow capacity. This would be an interim recommendation as it assumes the AHU's remain as-is. If the option to renovate the air-side of the HVAC system to a VAV system is chosen, then this work would be included in the renovation.</p> <p>The AHU's are provided with outside air from shafts that feed each mechanical room. The return air and outside air dampers modulate to maintain the air as cool as possible. This is an airside economizer. The excess air is forced into the relief airshaft. Propeller fans at the roof are cycled to remove the excess outside air. The fans, controlled by a pressure sensor in the building, are set to maintain a slight positive pressure. The relief air fan system is not the most precise but appears to be effective. This system should only be replaced as part of an overall renovation. The outside air is tempered in the wintertime by steam coils. These coils appeared to be in good condition at the time of the site visit.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Upgrade the existing system to provide more airflow. Replace the ductwork with larger ductwork and increase the fan speed. The exact ductwork arrangement would depend on the tenant layout. Therefore a general square footage allowance is provided for budgetary considerations. This is an 	<p><i>Fair</i></p>

G.42	<p>intermediary upgrade. It keeps the old constant volume system, but improves the airflow. This would be done as an alternative to other options. The estimated cost is \$621,241 exclusive of architectural costs. It is assumed that this upgrade would be part of a larger renovation. This recommendation is based in part on the Existing Conditions Report by BPLW Architects & Engineers dated May 9, 1994 and on BE, LLC's calculations. The current system provides approximately 1 cfm per square foot and modern systems provide 1.25 cfm per square foot. The cost estimate for this recommendation was developed with the assistance of a local contractor (MBI of Albuquerque).</p> <ul style="list-style-type: none"> • Install fire dampers in the existing ductwork at the proper locations to adhere to current codes. These locations consist of the dampers at the relief air shaft, the outside air shaft, the return air ductwork at the mechanical rooms, the basement mechanical rooms, on the louvers to the electrical room and at penetrations of all fire rated assemblies. This assumes that the building is undergoing a larger renovation and compliance with current codes would be required. This recommendation is based on the Existing Conditions Report prepared by BPLW Architects & Engineers, dated May 9, 1994 and BE, LLC's observations. The cost estimate for this recommendation was developed with the assistance of a local contractor (MBI of Albuquerque). 	
	<p>Energy Conservation: The constant volume variable temperature system is not the most energy efficient because at times there is simultaneous heating and cooling. There have been energy-conserving features added such as the airside economizing and a computer based energy management system. In addition, the chillers are newer (1992) and the boilers are fairly new (1999), which are more energy efficient than the original equipment. A Plate & Frame heat exchanger (HX) was installed in 1992 with the new chillers, cooling towers and pumps to help provide free cooling.</p> <p>The system does not comply with current GSA requirements for energy conservation.</p> <p>Recommendations: Refer to the optional upgrade to renovate the system to comply with GSA requirement in the cooling section.</p>	Fair
	<p>Controls: The controls are pneumatic with a computer based Energy Management System (EMS) overlay. The <i>Siemens Insight</i> EMS controls the HVAC system. The EMS has remote access capability. The EMS sends signals to panels that use electronic-to-pneumatic (EP) switches to direct control air to the pneumatic actuators. The controls were upgraded in the 1990s and appeared to be in good condition. The EMS head end, located in the engineer's office in the basement, controls nine other buildings as well.</p> <p>Recommendations: This system is fairly modern and should require only routine maintenance and software upgrades.</p>	Good
	<p>Water Treatment Systems: There is an automatic water treatment system for the condenser water system. There is a manual water treatment system for the boiler water system. The water treatment systems and equipment are modern and appear to be in good condition.</p> <p>Recommendations: No corrective action is recommended.</p>	Good

OPC Item #	H. PLUMBING	<u>Condition</u>
H.43	<p>Domestic Water: The City of Albuquerque provides the domestic water for the building. The supply piping observed was copper. It is assumed the solder used was 50-50 lead-antimony. Lead containing solder has been banned for years. Previous reports state that no lead in the water has been detected. An environmental engineer should be engaged to test the water for lead and make appropriate recommendations. The city supplies the water at a high pressure and pressure-reducing valves are located on each floor. There is a domestic booster pump that is currently by-passed. However, if the city pressure ever drops, then the booster pump may be necessary.</p> <p>Steam-to-hot water converters in the basement generate hot water. The converter has two steam bundles. One bundle is fed from the heating boilers in the winter and the second bundle is fed from a smaller boiler during the summer. There are two systems – one for 517 Gold and one for 500 Gold. One of the summertime boilers was non-operational due to a leak. This boiler should be replaced.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Replace the steam boiler used for summertime water heating that was inoperable at the time of the site visit. This recommendation is based on BE, LLC's observation of the non-operable boiler at the time of the site visit. This issue was not mentioned in any of the reports provided for review. The cost estimate for this recommendation was developed with the assistance of a local contractor (MBI of Albuquerque). 	Fair
H.44	<p>Sanitary Sewer: The City of Albuquerque provides the sanitary sewer service. The upper levels of the building flow via gravity to the municipal system. The drain piping observed was galvanized steel. No destructive tests were performed. The engineer reported that some previous test indicated that the pipes are in good condition. However, given the age of the piping and that the life expectancy of the galvanized pipe is almost exceeded, funds should be budgeted for the replacement of the galvanized sanitary drain piping as the floors are renovated for tenant improvement. The lower level drains to a sewage ejection system that operates from compressed air. The system is original with very few moving parts. According to the engineer, the system is in good condition. Although this system is old, there appears to be no reason to replace it until parts are no longer available.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Upgrade the plumbing sanitary waste piping. Although no issues reported or observed, the galvanized waste piping has a 40-year life expectancy. As part of future renovation of the interior, replace the galvanized sanitary waste piping with cast iron soil pipe. This recommendation is based in part on the Existing Conditions Report prepared by BPLW Architects & Engineers, dated May 9, 1994. BE, LLC does not agree fully with the previous report. The previous report lists the maximum life of the pipe as 25 years. BE, LLC did not see any obvious corrosion issues and believes galvanized pipe used for this purpose can last up to 50 years. Because the building is 46 years old, BE, LLC recommends replacement in the near future. The cost estimate for this 	Fair

	recommendation was developed with the assistance of a local contractor (MBI of Albuquerque).	
	Plumbing Fixtures: The plumbing fixtures observed appeared to be dated but in good condition. The fixtures were made of vitreous china. The water closets and urinals were floor-mounted with flush valves. The lavatories were wall mounted. Refer to Section F. Limited Disabled-Access Review for Americans with Disabilities Act compliance. The plumbing fixtures are expected to only require routine maintenance over the next 10 years.	<i>Poor</i>
	Recommendations: No corrective action is recommended.	
	Irrigation System: There is no irrigation system and none is required. The building is in an urban setting and there is no site landscaping.	<i>N/A</i>
	Recommendations: Not applicable.	
	Gas: PNM (Public Service Company of New Mexico) provides the natural gas to the building. The boilers for generating steam for heating water and domestic hot water use gas. The deli uses gas for cooking. There were no observed or reported issues with the gas service.	<i>Good</i>
	Recommendations: No corrective action is recommended.	
	Special Systems: There are no special plumbing systems.	<i>N/A</i>
	Recommendations: Not applicable.	

OPC Item #	I. ELECTRICAL SYSTEMS	Condition
I.45	<p>Power</p> <p>Incoming Service: Public Service Company of New Mexico (PNM) provides 4,160-volts, 3-phase, 3-wire electricity to the building from utility power pole in the public alley to the north of the building. 4,160-volts is served to the primary switchgear in the basement that serves the two chillers. Power is then transformed down to a 4,000-ampere, 480/277 volts, 3-phase, 4-wire <i>ITE Imperial</i> distribution switchboard.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Thermoscan the entire electrical system on an annual basis, including the main 5 KV switchgear, distributions boards, motor control centers, 480 and 208 panels, transformers, and disconnect switches. Recommended based on age of equipment. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	<i>Good</i>
	<p>Switchgear: The <i>ITE</i> main switchboard replaced the old <i>Federal Pacific</i> main switchboard in 1986. Two (2) 600-ampere, 480/277 volts, 3-phase, 4-wire feeder-ducts rise up through the building in stackable electric rooms. A total of two electrical rooms are provided on each floor with one located at each of the two</p>	<i>Fair</i>

	<p>stairwells. The electric rooms have 480/277-volts, 3-phase, 4-wire panel boards, transformers, and 208/120-volts, 3-phase, 4-wire panel boards. The panel boards and transformers are antiquated and replacement parts are very hard to acquire. Circuit capacity is limited in the panels. The small sized transformers also limit power. With the installation of telephone racks, proper code clearance has been compromised in the electrical rooms.</p> <p>Recommendations:</p> <p>I.46 • High pot test all feeders, transformers, and cable buses. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.</p> <p>I.47 • Thoroughly inspect and clean all 480 and 208 volt panelboards. Test each circuit breaker for tripping action. Replace any faulty devices. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.</p> <p>I.48 • Replace old style transformers with K Rated type that compensates for electronic loads. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).</p> <p>I.49 • Completely remove the entire electrical system except for the 5KV switchgear and 4,000-ampere 480/277-volt main switchboard. Install new distribution system, lighting, receptacles, feeders, panelboards, transformers, controls, etc. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).</p>	
	<p>Wiring: <i>Federal Pacific</i> feeder ducts rise up the building in each of the two electrical rooms. All distribution feeders, feeder ducts and branch circuit utilize copper conductors. An under-floor duct system provides 120-volt power and telephone/data cabling to the open office areas and the perimeter offices with floor monument outlets. The duct system terminates in each of the electrical rooms adjacent to the stairwells.</p> <p>Recommendations:</p> <p>I.50 • Inspect branch circuit conductors throughout. Spot Meggar (high pot test) conductors and replace runs that do not meet manufacturer's specs. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.</p> <p>I.51 • Replace all switches, receptacles, device plates with modern type. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).</p>	<i>Fair</i>
	<p>Other</p> <p>Exterior/Site Lighting: Exterior lighting is limited to incandescent soffit lighting at the main entry off Gold Avenue and wall-mounted mercury vapors fixtures on the north side facing the public alley.</p> <p>Recommendations: Refer to the recommendations under Interior Lighting, below.</p>	<i>Fair</i>
	<p>Interior Lighting: 2' x 4' and 2' x 2' recessed fluorescent fixtures with parabolic aluminum louvers and prismatic lenses are provided on 1st through 5th floors and</p>	<i>Fair</i>

	are mounted in a suspended ceiling grid. The 6 th through the 8 th floor has old style pendant 4' long fluorescent fixtures with "eggcrate" diffusers. Lighting levels on the occupied floors appears adequate. Provide occupancy sensors in all offices, conference rooms, utility rooms, etc. for increased energy efficiency.	
I.52	<p>Recommendations:</p> <ul style="list-style-type: none"> Retrofit the fluorescent and incandescent fixtures in the 1st through 5th floors with energy efficient lamps and ballasts. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
I.53	<ul style="list-style-type: none"> Provide new recessed fluorescent lighting fixtures on floors 6 through 8 with T8 lamps and electronic ballasts in conjunction with new ceiling system. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
I.54	<ul style="list-style-type: none"> Provide occupancy sensors in all offices, conference rooms, utility rooms, etc. for increased energy efficiency. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
I.55	<ul style="list-style-type: none"> Replace old style incandescent fixtures in the basement, penthouse, and electrical and utility rooms on each floor with energy efficient striplight fixtures. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
	<p>Emergency Power: A <i>Cummins</i> 500 KW 480/277-volt, 3-phase diesel generator located at the northeast corner of the building and accessible from the public alley serves both the 517 and 500 Gold Avenue buildings. The generator also serves 500 Gold Avenue. Emergency power is served to the elevator banks, fire pump, egress and exit lighting, fire alarm system, and security system.</p> <p>Recommendations:</p>	<i>Fair</i>
I.56	<ul style="list-style-type: none"> Replace old style exit fixtures with new battery type exit fixtures. Provide additional emergency egress lighting in the common corridors to meet the minimum 1 foot candle, as required by code. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
I.57	<ul style="list-style-type: none"> Separate the emergency systems from 500 Gold Avenue. Size the new generator to accommodate the fire alarm system, emergency lighting, security system, fire pump, and elevators. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	
	<p>Telephone: QWEST provides both hardwired copper cabling and DSL cabling to the main telephone room in the basement. No fiber optics cabling is provided to the building, although it is available in the public streets.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Fair</i>
	<p>Special Systems (Cable, Satellite, etc.): A partial lightning protection system protects an antenna. No lightning terminals are provided.</p> <p>Recommendations:</p>	<i>Poor</i>
I.58	<ul style="list-style-type: none"> Provide a lightning control system and tie into the existing BMS. Recommended 	

	to meet current code requirements. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.	
I.59	<p>Security Systems: The existing security system is limited to a few remote cameras and electronic door locks. The system is out of date and limited.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Install a new security system for the building, including, electronic door locks, cameras, and elevator keys. New system to comply with GSA Standards PBS-PQ100.1. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports. 	<i>Fair</i>

OPC Item #	J. FIRE/LIFE SAFETY SYSTEMS	<u>Condition</u>
	<p>Fire Sprinkler System: This building was originally constructed without the inclusion of automatic fire sprinklers. Automatic fire sprinklers were retrofitted throughout the building in 1989. GEM Model F950, 165° F pendant sprinklers are installed throughout most of the building. However, on the sixth floor, GEM model CP, 165° F sidewall sprinklers are installed throughout all rooms along the perimeter of the building. It appears that the reason for this is that a different style of dropped ceiling and light fixtures were used which created obstructions for standard spray sprinklers. Central on-off model sprinklers are installed in all electrical rooms including the elevator equipment room.</p> <p>Limited observations above the ceiling indicate that <i>Allied XL</i> schedule 10 thinwall piping was utilized for the sprinkler branchlines. <i>Allied XL</i> thinwall is a UL listed sprinkler pipe, however because it is thinwall, it offers reduced through-pipe corrosion resistance when compared to schedule 40 piping.</p> <p>The sprinkler systems for each floor are supplied from a single vertical riser that runs the full height of the building in a shaft located about midway along the north corridor. A placard is provided on the riser at the 1st floor. The placard indicates that the system is designed to provide a hydraulic density of 0.15 gpm over 1,527 ft² when supplied by 401 gpm @ 75 psi at the base of the riser.</p> <p>The water supply for the sprinkler system is provided via an 8-inch connection to a public water main of unknown size from 5th Street. A booster pump is not provided. A Class I standpipe is provided at each floor landing and in each of the two stairways. Fire department connections are provided at street level at the southwest and southeast corners of the building.</p>	<i>Fair</i>

<p>J.60</p> <p>J.61</p> <p>J.62</p> <p>J.63</p>	<p>Recommendations:</p> <ul style="list-style-type: none"> • Provide a secondary water supply in accordance with Section 403.2.1 of the UBC. A secondary water supply is required for high-rise buildings that are located in seismic zones 2, 3, and 4. This recommendation is based on the code references cited and is not mentioned in the previous report provided. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. • Replace the 6th floor sidewall sprinklers. Many of the sidewall sprinklers are improperly spaced based on NFPA 13 code requirements. This issue was not mentioned in the previous report provided. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. • Test and review the sprinkler system water for Microbiologically Influenced Corrosion (MIC). Visually examine a representative sample of the sprinkler piping for the presence of MIC activity. Note: If MIC is determined to be active through either of the means described above, then a MIC remediation program will be necessary. This will add significant additional costs to this item. This recommendation is based on industry practices and the requirements of NFPA 13 that are applicable to a new sprinkler system. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. • Replace the on-off sprinklers throughout the electrical rooms and elevator machine room with standard sprinklers. On-Off sprinklers have been discontinued and are recommended for replacement. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. 	
<p>J.64</p>	<p>Fire Alarm System: The building is provided with an Edwards model 8500 fire alarm panel located in room 1006 on the 1st floor just off of the south entry doors. Based on indicator lights and panel placards, it appears that the panel monitors only valve tamper supervision and sprinkler system water flow. The <i>Edwards 8500</i> panel was produced in the late 1970's early 1980's. Parts and support for this panel are difficult and costly to obtain. The panel is programmable by the factory only and as a result, programming requires a significant lead-time and can also be very costly. Although the panel is currently functional, it is obsolete by today's standards and has limited capabilities for support and expansion.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Test all supervisory and alarm initiating devices to verify that the devices are functional and report properly to the fire alarm panel. Upgrade the fire alarm system. The existing system is becoming obsolete and replacement parts will be difficult to obtain. Undertake as a part of the proposed renovation. This recommendation is based on the testing requirements of NFPA 25 and is standard industry practice. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. 	<p><i>Fair</i></p>
	<p>Stair Pressurization/Smoke Control: No stair pressurization/smoke control system is currently provided in the building. No system was required by code at the time of construction. Stair pressurization is required by current code since the building is classified as a high-rise.</p>	<p><i>Fair</i></p>

<p>J.65</p> <p>J.66</p>	<p>Recommendations:</p> <ul style="list-style-type: none"> • Provide stair pressurization fans or vestibules for the two fire stairs and pressurization fans for the new elevator lobbies. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement. This recommendation was developed based on the high-rise requirements of the UBC. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. • Provide smoke detection in the exit access corridors. This recommendation was developed to address the non-rated corridor provisions of the UBC. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. 	
	<p>Fire Extinguishers and Fire Hydrants: 2A:20BC dry chemical hand held fire extinguishers are provided throughout the building at travel distances not exceeding 75 feet. Two municipal fire hydrants are each located within 100 feet of the fire department connections at the southwest and southeast corners of the building. Each of the fire department connections supplies the wet standpipe connections, which are provided at each floor landing in each of the stairwells.</p> <p>Recommendations: No corrective action is recommended.</p>	<p><i>Good</i></p>
	<p>Means of Egress: Chapter 10 of the UBC provides methods for determining the occupant load of the building for egress purposes. Table 10-A provides for a method that calculates occupant load based on the area of the building floors. The largest usable floor area is 26,836 sf. (Refer to Section E. Building Area Calculations, above.) Applying an occupant load factor of 1 person per 100 ft² in the offices, an approximate occupant load of 269 persons can be assigned per floor. Two exits are required for this building and the Code assumes that approximately ½ of the occupants will exit via each of the two exits. Therefore, each exit must be sized to accommodate 135 occupants. The maximum area of meeting rooms permitted per floor level is 2,500 sf, without requiring the width of the fire stairs to be increased.</p> <p>Each floor of this building is laid out similarly in that offices are provided along the perimeter of the floor and conference rooms and similar assembly areas are in the interior of the space. The elevators are located slightly east of the center of the building and the open elevator lobby connects the corridor to the north and south. The resulting corridor configuration resembles a squared off figure eight that runs east – west in the building with exit stairways at the southwest and northeast corners.</p> <p>Many of the means of egress identification signs (exit signs) are not provided such that they are readily visible from any direction of approach (UBC 1003.2.8.1). Many of the exit signs are also not adequately illuminated in accordance with UBC 1003.2.8.4.</p> <p><u>EXIT ACCESS</u></p> <p>1. Travel Distance: A maximum travel distance of 250 feet is allowed in sprinklered buildings (UBC Section 1004.2.5.2.2). The maximum travel distance that was measured in this building is 220 feet. Therefore the building meets the current travel distance requirements.</p>	<p><i>Fair</i></p>

2. Corridor Construction: UBC Section 1004.3.4.3 requires corridors that provide access to an exit are one-hour rated. Exception #6 of this section allows the corridors to be non-rated construction if a single tenant occupies this floor of the building. (It cannot be assumed that a single tenant will occupy the floors. If this were the case then fire rated walls would not be required.) Therefore, in order to comply the owner must provide 20-minute fire rated doors, 1-hour rated corridor construction or smoke detection within the corridor.
3. Elevator Lobbies: UBC Section 1004.3.4.5 requires that elevators that open into a corridor be provided with elevator lobbies. The lobby shall completely separate the elevator from the corridor and are required at each of the floors with the exception of the 1st floor. The building does not currently provide elevator lobbies.

EXIT

1. Door Width: The minimum required door width based on 135 occupants and UBC Table 10-B is 27 inches (0.2 inches per occupant). Currently, each of the doorways leading into the stairways measures 32 ½ inches.
2. Stair Width: The minimum required stair width based on 135 occupants and UBC Table 10-B is 41 inches (0.3 inches per occupant). Currently, the width of each of the stairways is 55 ½ inches.
3. Area of Refuge: The northeast stairway is provided with a vestibule that would serve as an area of refuge in the event of an emergency. Section 1104.2.3 of the UBC requires that an accessible area of refuge will be sized to accommodate a wheelchair space of not less than 30 inches by 48 inches without reducing the required width in the means of egress. The existing vestibule is 55 inches wide x 76 inches in length. The vestibule is currently not large enough to accommodate the wheelchair space without reducing the required exit width. However, the code allows this requirement to be waived when the building is protected by an automatic fire sprinkler system. (See exception 2. Another option would be to designate the new elevator lobbies, required as a part of the current high-rise code, as areas of rescue assistance, but this would require the lobbies to be pressurized.)
4. Pressurized Vestibule: The northeast stairway is provided with a vestibule that meets the dimensional requirements of UBC 1005.3.3.7. The southwest stairwell is not provided with a vestibule as required by current code for high-rise construction. In both cases, the vestibule would need to be pressurized.

EXIT DISCHARGE

1. The southwest and northeast stairwells both terminate at the 1st floor and provide direct access to the public way at grade level in accordance with UBC requirements.

Recommendations:

J.67

- Install B-label fire doors to replace the doors to the fire stairs, with vision panels. The existing doors do not have the required fire resistive rating. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement. This recommendation was developed in accordance with the requirements of the UBC and addresses non-rated corridors. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations.

J.68

- Provide 1-hour fire resistive elevator lobbies and separation doors at the upper floor levels to comply with the current requirements of high-rise construction.

J.69	<p>This recommendation was developed in accordance with the requirements of the UBC. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations.</p> <ul style="list-style-type: none"> Provide additional exit signs and illumination of same. This recommendation was developed to address the egress criteria of the UBC. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. 	
J.70	<p>High-rise Requirements: Section 403 of the UBC addresses the special requirements for a high-rise building. A high-rise building is defined as a building having one or more occupiable floors located more than 75 feet above the lowest level of fire department access.</p> <p>The highest occupiable walking surface (the 8th story) is approximately 79 foot, 6 inches above the lowest level of fire department access. In accordance with the UBC, if the distance from the lowest level of fire department access to the walking surface of the highest occupiable level is 75 feet or greater, then the building is considered a high-rise structure and must comply with high-rise provisions such as:</p> <ol style="list-style-type: none"> 1. Fire Command Center 2. Emergency voice/alarm communications system 3. Standby power, light and emergency systems 4. Stairway door operation 5. Stairway communications system 6. Secondary fire protection water supply 7. Smoke control and pressurized stairwells <ul style="list-style-type: none"> Recommendations: Undertake the following recommendations, as required by current code for high-rise construction: These recommendations were developed in accordance with the high-rise requirements of the UBC. The cost estimate was developed based the fire/life safety consultant's (RJA) historic experience, on other similar installations. 	Poor
J.71	<ul style="list-style-type: none"> Provide emergency communications (firefighter phones) at each level of each fire stairway. 	
J.72	<ul style="list-style-type: none"> Provide a fire command center on the first floor. 	
J.73	<ul style="list-style-type: none"> Provide an emergency voice alarm communications system. Provide standby power for all emergency systems. 	

OPC Item #	K. VERTICAL TRANSPORTATION		Condition
Manufacturer:	Otis	Quantity:	Four
Date of Installation:	1958	Type:	Electric traction
Speed:	500 FPM	Capacity:	3500 #
Use:	Passenger	Floor(s) Served:	Basement-8
	<p>Equipment: Vertical transportation at the property is provided by a four-car group of gearless traction passenger elevators. Elevators No. 1 and 2 provide service to levels 1-8; Elevators No. 3 and 4 provide service to levels B, 1-8.</p> <p>Elevator No. 4 is equipped to provide passenger service as part of a four-car group or freight service as a standalone elevator operating from a set of corridor call</p>		Good

	<p>buttons separate from the group corridor calls. This swing-type capability is called Inconspicuous Riser operation and is fairly typical in buildings that do not feature a separate, dedicated freight elevator. Although it is unusual to find a GSA-owned facility of this size that does not have a dedicated freight elevator the Inconspicuous Riser scheme does fulfill the general requirements set forth in PBS PQ-100M.</p> <p>All four-passenger elevators were originally manufactured and installed by <i>Otis</i> Elevator Co. during the 1960's construction of the building. In 1994 the elevators underwent a comprehensive modernization, retaining little of the original <i>Otis</i> equipment (essentially only hoist machines, compounding sheaves and guide rails were retained). Virtually every other component in the system was replaced during the modernization. Considering the high quality of the <i>Otis</i> hoist machines and the unlimited useful life of the guide rails, every component and subsystem is now capable of providing at least another 15-20 years of efficient, reliable operation. With proper preventive maintenance care, there are no elevator equipment upgrades anticipated within the next 10 years.</p> <p>The existing elevator cab interior finishes feature plastic laminate wall surfaces and vinyl tile floors. In a redevelopment of the building to Class A standards the cab interiors would not be appropriate for that leasing profile. New cab interior finishes featuring wood veneer or some other modern hard surface (glass, stone) and a different flooring material (carpet or stone) should be included in the redevelopment process.</p> <p>It has been mentioned that the building height may be reduced by two levels. In that instance, the elevator machine room must be relocated. Such a relocation would require installation of new hoist machines, new logic and motion controls, new hoist ropes, new compensation ropes, new traveling cables, removal of eight entrance assemblies (four each at floors 7 and 8) and modifications to car operating and signaling devices.</p> <p>Recommendations:</p>	
K.74	<ul style="list-style-type: none"> • Provide an allowance to modernize the elevator cab interiors. 	
	<p>Disabled Access: Elevators were reviewed for compliance with the Americans with Disabilities Act/Accessibility Guidelines (ADAAG) and Uniform Federal Accessibility Standards (UFAS). Two deviations were noted, both relating to two-way communication in the cab.</p> <p>Recommendations:</p>	<i>Fair</i>
K.75	<ul style="list-style-type: none"> • Install Braille designation on telephone cabinet door per UFAS/ADA. 	
K.76	<ul style="list-style-type: none"> • Provide means of non-verbal two-way communication to elevator per ADA. 	
	<p>Code: There are a number of building conditions relative to elevators that do not meet the current safety code for new elevators. These items are not considered deficiencies because applicable codes do not require their correction on a retroactive basis. Nonetheless, these are items where personal safety could be at risk and voluntary compliance is recommended. Foremost is providing a secure physical separation of the elevator equipment. Anyone with access to the building's penthouse has unrestricted access to the elevator equipment where there is potential for them to cause harm to themselves or to passengers on the elevators. Access to the machine room deck and to the secondary deck should be</p>	<i>Good</i>

restricted to trained personnel by installing a metal barricade at the stairs or ladders that lead to these spaces. A self-closing, self-locking gate must be included.

Around the entry into the machine room and along the entire secondary deck, guardrails have been installed to safeguard against falling from these elevated locations. However, these guardrails do not feature a kickplate to protect bystanders beneath these locations from falling materials. Both should be better protected with kick plates.

Elevator hoist ropes extend unprotected outside the physical bounds of the hoist machine and should be guarded by metal guards to protect maintenance personnel against accidental contact at both the machine room level and the secondary level.

The elevator machine room and pits feature fire suppression sprinklers but there does not appear to be a means provided to disconnect the main line power to the elevator prior to the application of water. The presence of water around operating elevator equipment creates the potential for uncontrolled movement of the elevator, posing grave danger to elevator users. Means to disconnect power to the elevator prior to the application of water should be installed.

A roof drain traverses the machine room ceiling and runs down the machine room wall through the secondary deck. Safety code for existing elevators prohibits pipes conveying liquids whose discharge could affect elevator operation from the machine room. The pipe should be encased in fire-rated enclosure.

An abandoned electrical conduit traverses the machine room ceiling and should be removed.

Smoke detectors are not present in the machine room to initiate Firefighters' Operation Phase I ("Recall") Operation. This is especially important with the presence of fire suppression sprinklers in the machine room.

Air conditioning should be installed in the elevator machine room to provide a stable operating environment of 65-85° F at maximum 85% non-condensing relative humidity.

Outlets in machine room, secondary and pits should be changed to provide GFCI protection.

Access to the secondary level should be restricted same as discussed for the machine room.

Each secondary bay should have a light switch installed at its entry point.

Floor numbers should be installed on the inside face of each hoistway door panel to assist rescue personnel.

Elevator pit lights should be changed from incandescent to fluorescent for energy efficiency and reliability.

K.77	Recommendations:	
	<ul style="list-style-type: none"> • Provide physical separation of elevator machine room equipment from other penthouse activities. 	
K.78	<ul style="list-style-type: none"> • Furnish air conditioning in elevator machine room to protect and extend the life expectancy of the electronic equipment. 	
K.79	<ul style="list-style-type: none"> • Enclose existing roof drainpipe traversing machine room in fire-rated enclosure. 	
K.80	<ul style="list-style-type: none"> • Remove abandoned conduit from machine room ceiling. 	
K.81	<ul style="list-style-type: none"> • Furnish GFI protection for machine room, secondary level and pit 120 VAC outlets. 	
K.82	<ul style="list-style-type: none"> • Furnish means to disconnect mainline power to the affected elevator(s) prior to the application of water from fire suppression sprinklers in the machine room and pits. 	
K.83	<ul style="list-style-type: none"> • Install smoke detectors in elevator machine room to initiate Firefighters' Service Phase I ("Recall") Operation. 	
K.84	<ul style="list-style-type: none"> • Install hoist rope guards for maintenance personnel safety. 	
K.85	<ul style="list-style-type: none"> • Install OSHA-prescribed kickplate around guardrail at machine room stairs. 	
K.86	<ul style="list-style-type: none"> • Provide physical separation of elevator secondary equipment from other penthouse activities. 	
K.87	<ul style="list-style-type: none"> • Install light switch at each elevator's secondary deck opening. 	
K.88	<ul style="list-style-type: none"> • Install OSHA-prescribed kickplate around guardrail at secondary deck. 	
K.89	<ul style="list-style-type: none"> • Install 4" floor number on inside face of each hoistway door panel. 	
K.90	<ul style="list-style-type: none"> • Replace incandescent lights in elevator pits with energy-efficient fluorescent lights. 	
	<p>Maintenance: Maintenance is being provided by <i>ThyssenKrupp Elevator Corp.</i> under what is reported as a full-service preventive maintenance contract with the General Services Administration.</p> <p>Maintenance condition of the equipment is nearly flawless and is considered well above average. There were no conditions noted during the site visit that need discussion.</p> <p>Recommendations: No corrective action is recommended.</p>	<i>Good</i>

OPC Item #	L. SPECIAL SYSTEMS	<u>Condition</u>
	<p>There are no special systems.</p> <p>Recommendations: Not applicable.</p>	<i>N/A</i>

OPC Item #	M. LIMITED PUBLIC RECORDS REVIEW	<u>Condition</u>
M.91	<p>Not included in the scope of services.</p> <p>Recommendations: Obtain a demolition permit, building permit and a mechanical permit from the City, if required by GSA to do so.</p>	N/A

V. CONCLUSION

The existing office building is in generally fair to poor condition and requires substantial renovation to comply with current code regarding structural floor loading concerns, current seismic code, current high-rise fire life-safety, and current accessibility codes. The issue of the renovation or demolition of the building is complicated by the fact that the basement level mechanical system serves other adjacent GSA buildings. The building was basically vacant at the time of the site visit. A "stigma" exists in the local leasing market, in that the building has serious structural deficiencies and is considered to be structurally unsafe. Even with the correction of the structural issues, the building appearance is dated and not considered to be a class A or B office building. Interior renovation alone will likely not change this perception of the quality of the building. An exterior rehab of the building will also likely be required to reposition the building in the market place. The condition and appearance of the building must also be considered in the context of a relatively high vacancy ratio (16%) for downtown Albuquerque.

OPINIONS OF PROBABLE COSTS

Delineation of Terms

The following spreadsheet describes BE, LLC's recommendations and opinions of probable costs to remedy identified issues at the property. Descriptions of the corrective work are brief and may not be all-inclusive. A more detailed scope of work, or construction documents, may be necessary prior to contracting for the identified corrective work.

Corrections are listed using the following criteria:

Recommendation: Brief description of the recommended correction and purpose of the work.

Rating: Priority rating of the recommendation, identifying its potential need and reason for attention.

1 – Code and Safety	Code violation and/or threat to health and safety
2 – Repair and Maintenance	Repair or routine/preventive maintenance
3 – Capital Expenditure	Capital expenditure necessary for continued facility operation consistent with industry standards
4 – Modernization/Improvement	Recommended improvement or modernization to enhance the facility's marketability

Cost: The amount indicated is BE, LLC's opinion of the probable construction cost in current dollars for performing the identified correction(s). The actual cost to provide this work may vary, depending on the quantity and type of work performed at a given time, the type of contractor selected to perform the work, and local market conditions. Note that this opinion of cost is provided on a preliminary basis.

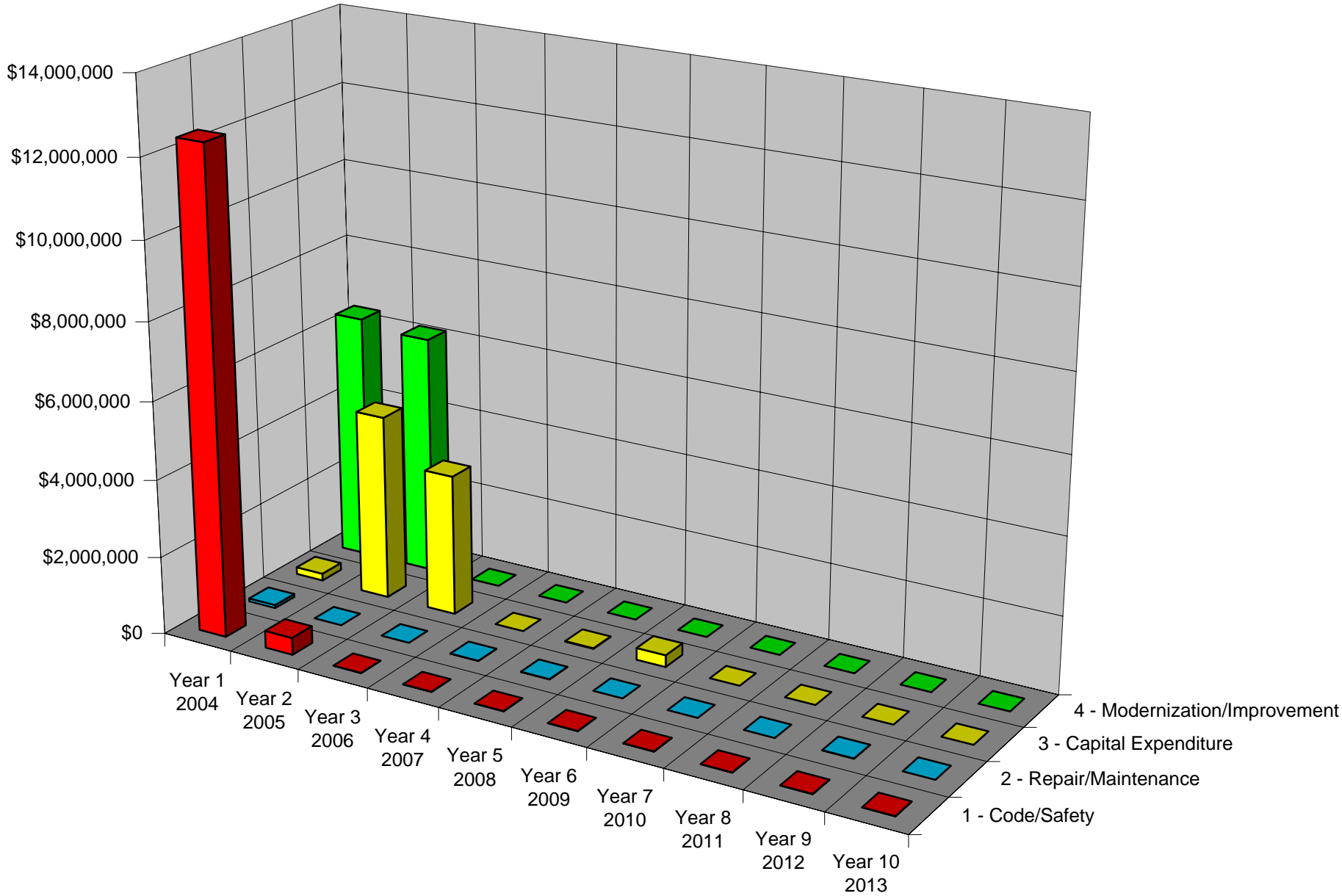
Year: The assigned year corresponds with the timing in which the corrective work should be undertaken for proper operation of the facility.

Unit

Abbreviations:

bldg	building	ls	lump sum
cf	cubic foot	pr	pair
cy	cubic yard	sf	square foot
ea	each	sq	square (roofing)
lf	linear foot	sy	square yard

517 Gold Avenue Costs Per Year By Rating



Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Ratings 1 - 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
A. SITE																
1	Repair the damaged asphalt paving in the rear parking lot area, apply a seal coat and restripe the stall lines. Anticipate repairs on a 5-8 year cycle.	2	10,000	sf	\$0.35	\$3,500				\$3,500				\$3,500		\$10,500
Site Subtotal						\$3,500	\$0	\$0	\$0	\$3,500	\$0	\$0	\$0	\$3,500	\$0	\$10,500
B. STRUCTURAL																
2	Undertake structural repair to address the floor deflection and floor strength issue to comply with current code and GSA guidelines regarding floor loading. The work includes adding concrete column capitals and reinforcing the slabs with carbon fibers and steel beams. This estimate was verified by Structural Preservation Systems, a contractor that specializes in this type of structural repair work.	1	1	ls	\$3,200,000	\$3,200,000										\$3,200,000
3	Level the deflected floors with a light weight non-structural topping slab leveling fill. The figure is based on the 1994 estimates provided by Reaveley Engineers & Associates with an escalation of 3% per year. This estimate was verified by Structural Preservation Systems, a contractor that specializes in this type of structural repair work.	1	220,000	sf	\$12	\$2,640,000										\$2,640,000
4	Undertake structural improvements to upgrade the building to current code regarding seismic forces.	1	276,535	sf	\$12	\$3,318,420										\$3,318,420
5	Brace the existing exterior masonry walls to the building structure to resist seismic forces as required by current code (\$169,260). Note: This work is not required if the option to install a new curtainwall system is implemented as noted in item #9.	1	11,284	lf	\$15	\$0										\$0
6	Brace the existing interior masonry walls (the primary corridor walls on each floor level) to resist seismic forces. Estimate assumes diagonal steel kickers will be required to connect the top of the wall to the floor slab above. This is a current code requirement. Another option is to demolish these walls and install new metal stud framed gypsum board walls framed with metal studs.	1	8	fls	\$20,000	\$160,000										\$160,000
Structural Subtotal						\$9,318,420	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,318,420
C. BUILDING EXTERIOR																
7	Provide an allowance to undertake minor future tuck repointing of the masonry walls. (Not required if the option to install a new curtainwall system is implemented.) (\$42,700)	3	42,700	sf	\$1.00									\$0		\$0
8	Provide an allowance to perform general masonry repairs to the rooftop screenwall masonry walls to address caulking, the joints, and step cracks.	2	1	ls	\$7,500	\$7,500										\$7,500
9	As an improvement to the appearance and the leaseability of the building remove the existing masonry walls and install a modern insulated, tinted glass curtainwall system with a stone base.	4	1	ls	\$7,457,715	\$3,728,858	\$3,728,858									\$7,457,715

Rating:
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Existing Conditions (Ratings 1 - 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
10	In lieu of item #9 above, install new ribbon windows and retain the brick wall below the sill level. Seismically strengthen the masonry wall as required.	4	1	ls	\$5,625,765	\$0	\$0									\$0
11	Install new sloped metal covers at openings in the rooftop screen wall.	2	136	ea	\$25	\$3,400										\$3,400
12	Patch cracked eyebrows in the exterior walls. (Not required if the option to install a new curtainwall system is implemented.) (\$17,000)	2	85	ea	\$200	\$0										\$0
13	Install new metal panels over existing porcelain building panels. (Not required if the option to install a new curtainwall system is implemented.) (\$67,200)	3	448	ea	\$150	\$0										\$0
14	Repair cracked stucco. (Not required if the option to install a new curtainwall system is implemented.) (\$280)	2	70	lf	\$4.00	\$0										\$0
15	Provide an allowance to wet-seal the perimeter glass to metal and metal panel joints, and to replace the perimeter sealant between the windows and the masonry. (Not required if the option to install a new curtainwall system is implemented.) (\$124,000)	3	31,000	lf	\$4.00									\$0		\$0
16	Secure loose sections of soffit & repair fascia at the main entrance. (Not required if the option to install a new curtainwall system is implemented.) (\$500)	1	1	ls	\$500	\$0										\$0
Building Exterior Subtotal						\$3,739,758	\$3,728,858	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,468,615
D. ROOFING																
17	Undertake immediate repairs to the roof membrane where bubbled. Provide an annual increasing roof inspection and maintenance allowance.	2	1	ls	varies	\$4,500	\$1,500	\$1,500	\$2,000	\$2,500		\$1,000	\$1,000	\$1,000	\$1,000	\$16,000
18	Anticipate removal and replacement of the roof membrane and rigid insulation within the next 5-8 years. The membrane is currently in fair condition. Install a new built up modified membrane and new insulation. Obtain a 10 year warranty. A less expensive option would be to install a single ply EPDM overlayment. Estimated to be \$5.00 per sf.	3	30,600	sf	\$10.00						\$306,000					\$306,000
19	Engage a roofing consultant to specify the new membrane, obtain bids, and observe the membrane installation.	3	30,600	sf	\$0.50					\$15,300						\$15,300
20	Install overflow drains to the ten roof drains as required by current code. This is not a retroactive code requirement but is recommended.	4	10	ea	\$3,000		\$30,000									\$30,000
Roofing Subtotal						\$4,500	\$31,500	\$1,500	\$2,000	\$17,800	\$306,000	\$1,000	\$1,000	\$1,000	\$1,000	\$367,300
E. BUILDING INTERIORS																
21	Provide 1-hour fire rated corridor construction on all floor levels. Install a fire rated ceiling system or extend the corridor walls full height. This is a UBC code requirement.	1	8	ea	\$30,000		\$240,000									\$240,000

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Existing Conditions (Ratings 1 - 4) 517 Gold Avenue Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
22	Salvage the lay in acoustical ceiling system and metal grid. The system is relatively new and can be stored offsite or in the basement and reused. It is estimated that at least 75% of the tile is reusable for another GSA building.	3	175,200	sf	\$0.75	\$131,400										\$131,400
23	Provide an allowance to refurbish the finishes in the common area corridors on each floor level. Estimate assumes much of the suspended ceiling system can be reused.	3	16,000	sf	\$38		\$608,000									\$608,000
24	Provide an allowance to refurbish the toilet rooms on each floor level. The fixtures and finishes are in poor, dated condition. Install new modern class A finishes. Undertake modifications to fully comply with the ADA and UFAS, whichever is the most restrictive.	3	8	fl	\$40,000		\$320,000									\$320,000
25	Provide an allowance to modernize the lobby interior, including creating a two story atrium open to the second floor lobby, and a curtain wall to the exterior.	4	2,000	sf	\$300		\$600,000									\$600,000
26	Repair the leaks in the basement tunnel which connects the two buildings below the street.	2	1	ls	\$5,000	\$5,000										\$5,000
27	Remove all suspect asbestos, lead and other hazardous materials prior to renovation, identified in the previous environmental reports. Cost estimate from previous R & H Associates report dated, 1999, with escalation at 3% per year is \$83,403 for lead abatement: \$3,821 for PCB's and florescent tube abatement: \$24,310 for specifications and monitoring and \$989,651 for asbestos abatement for a total of \$1,101,185. However, a "bid" was provided by Coronado Wrecking & Salvage (SW Abatement) on January 15, 2004 to remove these suspect materials in the amount of 975,820. BE, LLC proposes to use this bid plus the bond rate of 2.5% (\$1,000,215) vs. the engineer's estimates (inflated to date).	1	1	ls	\$1,000,215	\$1,000,215										\$1,000,215
28	Provide an allowance to refurbish the finishes in the tenant spaces on each floor level. Estimate assumes much of the ceiling system can be reused. The TI cost could be negotiated as a part of the tenant lease over the lease term. It is estimated it will take two years to lease the building once the structural repairs are completed.	3	207,500	sf	\$35		\$3,631,250	\$3,631,250								\$7,262,500
29	Demolish all the interior partition walls as part of the recommended structural repairs and floor leveling fill, and in other areas to accommodate future tenants. Estimate assumes floor covering removal is included in the abatement estimate above. A "bid" was provided by Coronado Wrecking & Salvage on January 15, 2004 to demo the interior in the amount of \$937,584. BE, LLC proposes to use this bid plus the bond rate of 1.8%.	1	1	ls	\$954,460	\$954,460										\$954,460
30	Provide an allowance to undertake a detailed building area study, to verify the building usable, rentable and gross areas on a floor by floor basis.	1	1	ls	\$53,000	\$53,000										\$53,000

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517 Gold Avenue
Albuquerque, NM

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Building Interiors Subtotal						\$2,144,075	\$5,399,250	\$3,631,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,174,575
F. LIMITED DISABLED-ACCESS REVIEW																
31	Provide 1 van accessible parking stall in the surface parking lot. The existing stalls reserved for use by the disabled are not fully compliant.	1	1	ls	\$450	\$450										\$450
32	Provide a ramped access into the elevated lobby level from Gold Avenue or a wheel chair lift. The lift at the loading dock door is not considered to be located at a primary public entry. This will require structural modifications to the slab and revisions to the entry doors. Undertake as a part of the proposed lobby renovation.	1	1	ls	\$175,000	\$175,000										\$175,000
33	Provide egress ramps from the two remote fire egress stairs to grade level.	1	2	ea	\$45,000	\$90,000										\$90,000
34	Undertake modifications to the toilet rooms on each floor level to fully comply with the most restrictive requirements of the ADA/UFAS. The cost is included in the estimate for the toilet room refurbishment, in item #24, above.	1	16	ea	\$4,000	\$0										\$0
35	Provide accessible drinking fountains on all occupied floors.	1	8	ea	\$500	\$4,000										\$4,000
36	Install a signage system in full compliance with the ADA/UFAS for the building common areas and tenant entry doors.	1	1	ls	\$35,000		\$35,000									\$35,000
Limited Disabled-Access Review Subtotal						\$269,450	\$35,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$304,450
G. HVAC																
37	Upgrade the HVAC System on the 8 floors. Remove the existing air handlers and ductwork and replace with new packaged variable air volume units, ductwork and VAV terminal units. Remove the perimeter radiator system. Bring the air-side portion of the HVAC system up to GSA standards per PBS-PQ100.1 Chapter 5. This is expected to cost approximately \$1,313,802. These costs do not include architectural costs. It is assumed that the HVAC upgrade would be part of a the new tenant improvement work. A local contractor (MBI of Albuquerque) estimated a budget price of \$1,277,422. This is within 3% of BE, LLC's in-house estimate.	4	187,686	sf	\$7		\$1,313,802									\$1,313,802
38	Budget funds for the 10-year overhaul of the chillers. Centrifugal chillers require a major maintenance approximately every 10-years to ensure their efficiency.	3	2	ea	\$5,000		\$10,000									\$10,000
39	Budget funds for the 10-year overhaul of the cooling towers. Cooling towers require a major maintenance approximately every 10-years to ensure their efficiency and to extend their serviceable life.	3	2	ea	\$2,000		\$4,000									\$4,000
40	Upgrade the existing system. Install Danfoss valves on the perimeter radiators to provide automatic control. This estimate was developed with the help of a local contractor (MBI of Albuquerque).	4	1	ls	\$129,376	\$129,376										\$129,376

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41	Upgrade the existing system to provide more air flow. Replace the ductwork with larger ductwork and increase the fan speed. The exact ductwork arrangement would depend on the tenant layout. Therefore a general square footage allowance is provided for budgetary considerations. This is an intermediary upgrade. It keeps the old constant volume system, but improves the air flow. This would be done as an alternative to other options. The estimated cost is \$621,241, exclusive of architectural costs. It is assumed that this upgrade would be part of a larger renovation. This estimate was developed with the aide of a local contractor (MBI of Albuquerque).	4	187,686	sf	\$3.31	\$0										\$0
42	Install fire dampers in the ductwork at the proper locations to adhere to current codes. These locations consist of the dampers at the relief air shaft, the outside air shaft, the return air ductwork at the mechanical rooms, The basement mechanical rooms, on the louvers to the electrical room and at penetrations of all fire rated assemblies. This assumes that the building is undergoing a larger renovation and compliance with current codes would be required. This estimate was developed with the help of a local contractor, MBI of Albuquerque. This item would not be necessary if item #37 above is implemented.	1	1	Is	\$128,075	\$0										\$0
HVAC Subtotal						\$129,376	\$1,327,802	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,457,178
H. PLUMBING SYSTEMS																
43	Replace the steam boiler used for summertime water heating that was inoperable at the time of the site visit. This estimate was developed with the help of a local contractor, MBI of Albuquerque.	2	1	Is	\$52,000	\$52,000										\$52,000
44	Upgrade the plumbing sanitary waste piping. Although no issues reported or observed, the galvanized waste piping has a 40 year life expectancy. As part of future renovation of the interior, replace the galvanized sanitary waste piping with cast iron soil pipe. This estimate was developed with the help of a local contractor, MBI of Albuquerque.	4	1	Is	\$230,000		\$230,000									\$230,000
Plumbing Systems Subtotal						\$52,000	\$230,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$282,000
I. ELECTRICAL SYSTEMS																
45	Thermoscan the entire electrical system on an annual basis, including the main 5 KV switchgear, distributions boards, motor control centers, 480 and 208 panels, transformers, and disconnect switches.	1	1	Is	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$60,000
46	High pot test all feeders, transformers, and cable buses.	1	1	Is	\$15,000	\$15,000										\$0
47	Thoroughly inspect and clean all 480 and 208 volt panelboards. Test each circuit breaker for tripping action. Replace any faulty devices. This option not required if item #51 is implemented.	1	1	Is	\$50,000	\$0										\$0

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48	Replace old style transformers with K Rated type that compensates for electronic loads. This option not required if item #51 is implemented.	4	1	Is	\$125,000	\$0										\$0
49	Completely remove the entire electrical system except for the 5KV switchgear and 4,000-ampere 480/277-volt main switchboard. Install new distribution system, lighting, receptacles, feeders, panelboards, transformers, controls, etc. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).	4	1	Is	\$1,200,000	\$1,200,000										\$1,200,000
50	Inspect branch circuit conductors throughout. Spot Meggar (high pot test) conductors and replace runs that do not meet mfgs. specs. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.	1	1	Is	\$120,000	\$120,000										\$120,000
51	Replace all switches, receptacles, device plates with modern type. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).	4	1	Is	\$15,000	\$15,000										\$15,000
52	Retrofit the fluorescent and incandescent fixtures in the 1st through 5th floors with energy efficient lamps and ballasts. This option not required if item #49 is implemented.	4	1,230	ea	\$65	\$0										\$0
53	Provide new recessed fluorescent lighting fixtures on floors 6 through 8 with T8 lamps and electronic ballasts in conjunction with new ceiling system. This option is not required if item #49 is implemented.	4	425	ea	\$225	\$0										\$0
54	Provide occupancy sensors in all offices, conference rooms, utility rooms, etc. for increased energy efficiency. This option is not required if item #49 is implemented.	4	1	Is	\$30,000	\$0										\$0
55	Replace old style incandescent fixtures in the basement, penthouse, and electrical and utility rooms on each floor with energy efficient striplight fixtures. This option is not required if item #49 is implemented.	4	1	Is	\$35,000	\$0										\$0
56	Replace old style exit fixtures with new battery type exit fixtures. Provide additional emergency egress lighting in the common corridors to meet min. 1 fc as required by code. This option is not required if item #49 is implemented.	4	1	Is	\$30,000	\$0										\$0
57	Separate the emergency systems from 500 Gold Avenue. Size the new generator to accommodate the fire alarm system, emergency lighting, security system, fire pump, and elevators. This is in addition to item #49.	4	1	Is	\$60,000	\$60,000										\$60,000

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58	Provide a lighting control system and tie into the existing BMS. This is in addition to item #49.	4	1	ls	\$30,000	\$30,000										\$30,000
59	Install a new security system for the building, including, electronic door locks, cameras, and elevator keys. New system to comply with GSA Standards PBS-PQ100.1. This is in addition to item #49.	4	1	ls	\$150,000		\$150,000									\$150,000
Electrical Systems Subtotal						\$1,446,000	\$156,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$1,635,000
J. FIRE/LIFE-SAFETY SYSTEMS																
60	Provide a secondary fire protection water supply, as required by current code, for high-rise construction.	4	1	ea	\$300,000	\$300,000										\$300,000
61	Replace the 6th floor sidewall sprinklers.	4	50	ea	\$125.00	\$6,250										\$6,250
62	Test and review the sprinkler system water for MIC.	4	1	ea	\$1,500	\$1,500										\$1,500
63	Replace the on-off sprinklers throughout the electrical rooms and elevator machine room with standard sprinklers.	2	20	ea	\$125	\$2,500										\$2,500
64	Upgrade fire alarm system. The existing system is becoming obsolete, and replacement parts will be difficult to obtain. Undertake as a part of the proposed renovation.	3	1	ea	\$200,000		\$200,000									\$200,000
65	Provide stair pressurization fans or vestibules for the two fire stairs and pressurization fans for the new elevator lobbies. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement.	1	3	ea	\$125,000	\$375,000										\$375,000
66	Provide smoke detection in the exit access corridors.	1	60	ea	\$1,000	\$60,000										\$60,000
67	Install B-label fire doors to replace the doors to the fire stairs, with vision panels. The doors do not have the required fire resistive rating. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement.	1	18	ea	\$1,200	\$21,600										\$21,600
68	Provide 1-hour fire resistive elevator lobbies and separation doors at the upper floor levels, to comply with the current requirements of high-rise construction.	1	8	ea	\$20,000		\$160,000									\$160,000
69	Provide additional exit signs and illumination of same.	1	50	ea	\$2,000	\$100,000										\$100,000
70	Provide emergency communications (firefighter phones) at each level of each fire stairway, as required by current code, for high-rise construction.	4	1	ea	\$150,000	\$150,000										\$150,000
71	Provide a fire command center on the first floor, as required by current code, for high-rise construction.	4	1	ea	\$400,000	\$400,000										\$400,000
72	Provide an emergency voice alarm communications system, as required by current code, for high-rise construction.	4	1	ea	\$150,000	\$150,000										\$150,000

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73	Provide standby power for all emergency systems, as required by current code, for high-rise construction.	4	1	ea	\$200,000	\$200,000										\$200,000
Fire/Life-Safety Systems Subtotal						\$1,766,850	\$360,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,126,850
K. VERTICAL TRANSPORTATION																
74	Provide an allowance to modernize the elevator cab interiors.	4	4	ea	\$35,000		\$140,000									\$140,000
75	Install Braille designation on telephone cabinet door per UFAS/ADA.	1	4	ea	\$500	\$2,000										\$2,000
76	Provide means of non-verbal two-way communication to elevator per ADA.	1	4	ea	\$3,000	\$12,000										\$12,000
77	Provide physical separation of elevator machine room equipment from other penthouse activities.	3	1	ea	\$10,000	\$10,000										\$10,000
78	Furnish air conditioning in elevator machine room to protect and extend the life expectancy of the electronic equipment.	3	1	ea	\$25,000	\$25,000										\$25,000
79	Enclose existing roof drain pipe traversing machine room in fire-rated enclosure.	1	1	ea	\$5,000	\$5,000										\$5,000
80	Remove abandoned conduit from machine room ceiling.	1	1	ea	\$1,000	\$1,000										\$1,000
81	Furnish GFI protection for machine room, secondary level and pit 120 VAC outlets.	1	10	ea	\$500	\$5,000										\$5,000
82	Furnish means to disconnect mainline power to the affected elevator(s) prior to the application of water from fire suppression sprinklers in the machine room and pits.	1	1	ls	\$40,000	\$40,000										\$40,000
83	Install smoke detectors in elevator machine room to initiate Firefighters' Service Phase I ("Recall") Operation.	1	5	ea	\$2,000	\$10,000										\$10,000
84	Install hoist rope guards for maintenance personnel safety.	1	4	ea	\$3,000	\$12,000										\$12,000
85	Install OSHA-prescribed kickplate around guardrail at machine room stairs.	1	1	ea	\$5,000	\$5,000										\$5,000
86	Provide physical separation of elevator secondary equipment from other penthouse activities.	3	1	ea	\$15,000	\$15,000										\$15,000
87	Install light switch at each elevator's secondary deck opening.	1	4	ea	\$2,000	\$8,000										\$8,000
88	Install OSHA-prescribed kickplate around guardrail at secondary deck.	1	1	ea	\$5,000	\$5,000										\$5,000
89	Install 4" floor number on inside face of each hoistway door panel.	1	34	ea	\$500	\$17,000										\$17,000
90	Replace incandescent lights in elevator pits with energy-efficient fluorescent lights.	4	4	ea	\$2,000	\$8,000										\$8,000
Vertical Transportation Subtotal						\$180,000	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$320,000
L. SPECIAL SYSTEMS																
	Not Applicable.															\$0
Special Systems Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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M. LIMITED PUBLIC RECORDS REVIEW																
91	Obtain a demolition permit, building permit and a mechanical permit from the City, if required by GSA to do so. These costs were included in the contractors estimates for the proposed renovation.	1	1	ea	\$25,000	\$0										\$0
Limited Public Records Review Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTALS BY YEAR - UNINFLATED						\$19,053,929	\$11,408,410	\$3,638,750	\$8,000	\$27,300	\$312,000	\$7,000	\$7,000	\$10,500	\$7,000	\$34,479,888
ESCALATION FACTOR PER YEAR (3.0%)						1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34	
TOTAL BY YEAR - INFLATED						\$19,625,546	\$12,103,182	\$3,976,160	\$9,004	\$31,648	\$372,544	\$8,609	\$8,867	\$13,700	\$9,407	\$36,158,669
CONTINGENCY @ 10%																\$3,615,867
GRAND TOTAL (INFLATED)																\$39,774,536
TOTALS BY RATING - UNINFLATED						\$12,415,145	\$441,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$12,904,145
TOTALS BY RATING - UNINFLATED						\$78,400	\$1,500	\$1,500	\$2,000	\$6,000	\$0	\$1,000	\$1,000	\$4,500	\$1,000	\$96,900
TOTALS BY RATING - UNINFLATED						\$181,400	\$4,773,250	\$3,631,250	\$0	\$15,300	\$306,000	\$0	\$0	\$0	\$0	\$8,907,200
TOTALS BY RATING - UNINFLATED						\$6,378,984	\$6,192,660	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,571,643

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure
4 - Modernization/Improvement

Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
A. SITE																
1	Repair the damaged asphalt paving in the rear parking lot area, apply a seal coat and restripe the stall lines. Anticipate repairs on a 5-8 year cycle.	2	10,000	sf	\$0.35	\$3,500				\$3,500				\$3,500		\$10,500
	Site Subtotal					\$3,500	\$0	\$0	\$0	\$3,500	\$0	\$0	\$0	\$3,500	\$0	\$10,500
B. STRUCTURAL																
2	Undertake structural repair to address the floor deflection and floor strength issue to comply with current code and GSA guidelines regarding floor loading. The work includes adding concrete column capitals and reinforcing the slabs with carbon fibers and steel beams. This estimate was verified by Structural Preservation Systems, a contractor that specializes in this type of structural repair work.	1	1	ls	\$3,200,000	\$3,200,000										\$3,200,000
3	Level the deflected floors with a light weight non-structural topping slab leveling fill. The figure is based on the 1994 estimates provided by Reaveley Engineers & Associates with an escalation of 3% per year. This estimate was verified by Structural Preservation Systems, a contractor that specializes in this type of structural repair work.	1	220,000	sf	\$12	\$2,640,000										\$2,640,000
4	Undertake structural improvements to upgrade the building to current code regarding seismic forces.	1	276,535	sf	\$12	\$3,318,420										\$3,318,420
5	Brace the existing exterior masonry walls to the building structure to resist seismic forces as required by current code (\$169,260). Note: This work is not required if the option to install a new curtainwall system is implemented as noted in item #9.	1	11,284	lf	\$15	\$0										\$0
6	Brace the existing interior masonry walls (the primary corridor walls on each floor level) to resist seismic forces. Estimate assumes diagonal steel kickers will be required to connect the top of the wall to the floor slab above. This is a current code requirement. Another option is to demolish these walls and install new metal stud framed gypsum board walls framed with metal studs.	1	8	fls	\$20,000	\$160,000										\$160,000
	Structural Subtotal					\$9,318,420	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,318,420
C. BUILDING EXTERIOR																
7	Provide an allowance to undertake minor future tuck repointing of the masonry walls. (Not required if the option to install a new curtainwall system is implemented.) (\$42,700)	3	42,700	sf	\$1.00									\$0		\$0
8	Provide an allowance to perform general masonry repairs to the rooftop screenwall masonry walls to address caulking, the joints, and step cracks.	2	1	ls	\$7,500	\$7,500										\$7,500
9	Install new sloped metal covers at openings in the rooftop screen wall.	2	136	ea	\$25	\$3,400										\$3,400
10	Patch cracked eyebrows in the exterior walls. (Not required if the option to install a new curtainwall system is implemented.) (\$17,000)	2	85	ea	\$200	\$0										\$0

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
11	Install new metal panels over existing porcelain building panels. (Not required if the option to install a new curtainwall system is implemented.) (\$67,200)	3	448	ea	\$150	\$0										\$0
12	Repair cracked stucco. (Not required if the option to install a new curtainwall system is implemented.) (\$280)	2	70	lf	\$4.00	\$0										\$0
13	Provide an allowance to wet-seal the perimeter glass to metal and metal panel joints, and to replace the perimeter sealant between the windows and the masonry. (Not required if the option to install a new curtainwall system is implemented.) (\$124,000)	3	31,000	lf	\$4.00									\$0		\$0
14	Secure loose sections of soffit & repair fascia at the main entrance. (Not required if the option to install a new curtainwall system is implemented.) (\$500)	1	1	ls	\$500	\$0										\$0
Building Exterior Subtotal						\$10,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,900
D. ROOFING																
15	Undertake immediate repairs to the roof membrane where bubbled. Provide an annual increasing roof inspection and maintenance allowance.	2	1	ls	varies	\$4,500	\$1,500	\$1,500	\$2,000	\$2,500		\$1,000	\$1,000	\$1,000	\$1,000	\$16,000
16	Anticipate removal and replacement of the roof membrane and rigid insulation within the next 5-8 years. The membrane is currently in fair condition. Install a new built up modified membrane and new insulation. Obtain a 10 year warranty. A less expensive option would be to install a single ply EPDM overlayment. Estimated to be \$5.00 per sf.	3	30,600	sf	\$10.00						\$306,000					\$306,000
17	Engage a roofing consultant to specify the new membrane, obtain bids, and observe the membrane installation.	3	30,600	sf	\$0.50					\$15,300						\$15,300
Roofing Subtotal						\$4,500	\$1,500	\$1,500	\$2,000	\$17,800	\$306,000	\$1,000	\$1,000	\$1,000	\$1,000	\$337,300
E. BUILDING INTERIORS																
18	Provide 1-hour fire rated corridor construction on all floor levels. Install a fire rated ceiling system or extend the corridor walls full height. This is a UBC code requirement.	1	8	ea	\$30,000		\$240,000									\$240,000
19	Salvage the lay in acoustical ceiling system and metal grid. The system is relatively new and can be stored offsite or in the basement and reused. It is estimated that at least 75% of the tile is reusable for another GSA building.	3	175,200	sf	\$0.75	\$131,400										\$131,400
20	Provide an allowance to refurbish the finishes in the common area corridors on each floor level. Estimate assumes much of the suspended ceiling system can be reused.	3	16,000	sf	\$38		\$608,000									\$608,000
21	Provide an allowance to refurbish the toilet rooms on each floor level. The fixtures and finishes are in poor, dated condition. Install new modern class A finishes. Undertake modifications to fully comply with the ADA and UFAS, whichever is the most restrictive.	3	8	fl	\$40,000		\$320,000									\$320,000

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
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Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
22	Repair the leaks in the basement tunnel which connects the two buildings below the street.	2	1	ls	\$5,000	\$5,000										\$5,000
23	Remove all suspect asbestos, lead and other hazardous materials prior to renovation, identified in the previous environmental reports. Cost estimate from previous R & H Associates report dated, 1999, with escalation at 3% per year is \$83,403 for lead abatement: \$3,821 for PCB's and florescent tube abatement: \$24,310 for specifications and monitoring and \$989,651 for asbestos abatement for a total of \$1,101,185. However, a "bid" was provided by Coronado Wrecking & Salvage (SW Abatement) on January 15, 2004 to remove these suspect materials in the amount of 975,820. BE, LLC proposes to use this bid plus the bond rate of 2.5% (\$1,000,215) vs. the engineer's estimates (inflated to date).	1	1	ls	\$1,000,215	\$1,000,215										\$1,000,215
24	Provide an allowance to refurbish the finishes in the tenant spaces on each floor level. Estimate assumes much of the ceiling system can be reused. The TI cost could be negotiated as a part of the tenant lease over the lease term. It is estimated it will take two years to lease the building once the structural repairs are completed.	3	207,500	sf	\$35		\$3,631,250	\$3,631,250								\$7,262,500
25	Demolish all the interior partition walls as part of the recommended structural repairs and floor leveling fill, and in other areas to accommodate future tenants. Estimate assumes floor covering removal is included in the abatement estimate above. A "bid" was provided by Coronado Wrecking & Salvage on January 15, 2004 to demo the interior in the amount of \$937,584. BE, LLC proposes to use this bid plus the bond rate of 1.8%.	1	1	ls	\$954,460	\$954,460										\$954,460
26	Provide an allowance to undertake a detailed building area study, to verify the building usable, rentable and gross areas on a floor by floor basis.	1	1	ls	\$53,000	\$53,000										\$53,000
Building Interiors Subtotal						\$2,144,075	\$4,799,250	\$3,631,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,574,575
F. LIMITED DISABLED-ACCESS REVIEW																
27	Provide 1 van accessible parking stall in the surface parking lot. The existing stalls reserved for use by the disabled are not fully compliant.	1	1	ls	\$450	\$450										\$450
28	Provide a ramped access into the elevated lobby level from Gold Avenue or a wheel chair lift. The lift at the loading dock door is not considered to be located at a primary public entry. This will require structural modifications to the slab and revisions to the entry doors. Undertake as a part of the proposed lobby renovation.	1	1	ls	\$175,000	\$175,000										\$175,000
29	Provide egress ramps from the two remote fire egress stairs to grade level.	1	2	ea	\$45,000	\$90,000										\$90,000
30	Undertake modifications to the toilet rooms on each floor level to fully comply with the most restrictive requirements of the ADA/UFAS. The cost is included in the estimate for the toilet room refurbishment, in item #24, above.	1	16	ea	\$4,000	\$0										\$0

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

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31	Provide accessible drinking fountains on all occupied floors.	1	8	ea	\$500	\$4,000										\$4,000
32	Install a signage system in full compliance with the ADA/UFAS for the building common areas and tenant entry doors.	1	1	ls	\$35,000		\$35,000									\$35,000
Limited Disabled-Access Review Subtotal						\$269,450	\$35,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$304,450
G. HVAC																
33	Budget funds for the 10-year overhaul of the chillers. Centrifugal chillers require a major maintenance approximately every 10-years to ensure their efficiency.	3	2	ea	\$5,000		\$10,000									\$10,000
34	Budget funds for the 10-year overhaul of the cooling towers. Cooling towers require a major maintenance approximately every 10-years to ensure their efficiency and to extend their serviceable life.	3	2	ea	\$2,000		\$4,000									\$4,000
35	Install fire dampers in the ductwork at the proper locations to adhere to current codes. These locations consist of the dampers at the relief air shaft, the outside air shaft, the return air ductwork at the mechanical rooms, The basement mechanical rooms, on the louvers to the electrical room and at penetrations of all fire rated assemblies. This assumes that the building is undergoing a larger renovation and compliance with current codes would be required. This estimate was developed with the help of a local contractor, MBI of Albuquerque. This item would not be necessary if item #37 above is implemented.	1	1	ls	\$128,075	\$0										\$0
HVAC Subtotal						\$0	\$14,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,000
H. PLUMBING SYSTEMS																
36	Replace the steam boiler used for summertime water heating that was inoperable at the time of the site visit. This estimate was developed with the help of a local contractor, MBI of Albuquerque.	2	1	ls	\$52,000	\$52,000										\$52,000
Plumbing Systems Subtotal						\$52,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52,000
I. ELECTRICAL SYSTEMS																
37	Thermoscan the entire electrical system on an annual basis, including the main 5 KV switchgear, distributions boards, motor control centers, 480 and 208 panels, transformers, and disconnect switches.	1	1	ls	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$60,000
38	High pot test all feeders, transformers, and cable buses.	1	1	ls	\$15,000	\$15,000										\$0
39	Thoroughly inspect and clean all 480 and 208 volt panelboards. Test each circuit breaker for tripping action. Replace any faulty devices. This option not required if item #51 is implemented.	1	1	ls	\$50,000	\$0										\$0
40	Inspect branch circuit conductors throughout. Spot Meggar (high pot test) conductors and replace runs that do not meet mfgs. specs. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This issue was not mentioned in any of the previous reports.	1	1	ls	\$120,000	\$120,000										\$120,000
Electrical Systems Subtotal						\$141,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$180,000

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
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Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
J. FIRE/LIFE-SAFETY SYSTEMS																
41	Replace the on-off sprinklers throughout the electrical rooms and elevator machine room with standard sprinklers.	2	20	ea	\$125	\$2,500										\$2,500
42	Upgrade fire alarm system. The existing system is becoming obsolete, and replacement parts will be difficult to obtain. Undertake as a part of the proposed renovation.	3	1	ea	\$200,000		\$200,000									\$200,000
43	Provide stair pressurization fans or vestibules for the two fire stairs and pressurization fans for the new elevator lobbies. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement.	1	3	ea	\$125,000	\$375,000										\$375,000
44	Provide smoke detection in the exit access corridors.	1	60	ea	\$1,000	\$60,000										\$60,000
45	Install B-label fire doors to replace the doors to the fire stairs, with vision panels. The doors do not have the required fire resistive rating. This work may or may not be required by code depending on the extent or the renovation work undertaken, however this is a recommended fire/life safety improvement.	1	18	ea	\$1,200	\$21,600										\$21,600
46	Provide 1-hour fire resistive elevator lobbies and separation doors at the upper floor levels, to comply with the current requirements of high-rise construction.	1	8	ea	\$20,000		\$160,000									\$160,000
47	Provide additional exit signs and illumination of same.	1	50	ea	\$2,000	\$100,000										\$100,000
Fire/Life-Safety Systems Subtotal						\$559,100	\$360,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$919,100
K. VERTICAL TRANSPORTATION																
48	Install Braille designation on telephone cabinet door per UFAS/ADA.	1	4	ea	\$500	\$2,000										\$2,000
49	Provide means of non-verbal two-way communication to elevator per ADA.	1	4	ea	\$3,000	\$12,000										\$12,000
50	Provide physical separation of elevator machine room equipment from other penthouse activities.	3	1	ea	\$10,000	\$10,000										\$10,000
51	Furnish air conditioning in elevator machine room to protect and extend the life expectancy of the electronic equipment.	3	1	ea	\$25,000	\$25,000										\$25,000
52	Enclose existing roof drain pipe traversing machine room in fire-rated enclosure.	1	1	ea	\$5,000	\$5,000										\$5,000
53	Remove abandoned conduit from machine room ceiling.	1	1	ea	\$1,000	\$1,000										\$1,000
54	Furnish GFI protection for machine room, secondary level and pit 120 VAC outlets.	1	10	ea	\$500	\$5,000										\$5,000
55	Furnish means to disconnect mainline power to the affected elevator(s) prior to the application of water from fire suppression sprinklers in the machine room and pits.	1	1	ls	\$40,000	\$40,000										\$40,000
56	Install smoke detectors in elevator machine room to initiate Firefighters' Service Phase I ("Recall") Operation.	1	5	ea	\$2,000	\$10,000										\$10,000

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
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Opinions of Probable Costs

Existing Conditions (Ratings 1 - 3)
517 Gold Avenue
Albuquerque, NM

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57	Install hoist rope guards for maintenance personnel safety.	1	4	ea	\$3,000	\$12,000										\$12,000
58	Install OSHA-prescribed kickplate around guardrail at machine room stairs.	1	1	ea	\$5,000	\$5,000										\$5,000
59	Provide physical separation of elevator secondary equipment from other penthouse activities.	3	1	ea	\$15,000	\$15,000										\$15,000
60	Install light switch at each elevator's secondary deck opening.	1	4	ea	\$2,000	\$8,000										\$8,000
61	Install OSHA-prescribed kickplate around guardrail at secondary deck.	1	1	ea	\$5,000	\$5,000										\$5,000
62	Install 4" floor number on inside face of each hoistway door panel.	1	34	ea	\$500	\$17,000										\$17,000
Vertical Transportation Subtotal						\$172,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$172,000
L. SPECIAL SYSTEMS																
	Not Applicable.															\$0
Special Systems Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
M. LIMITED PUBLIC RECORDS REVIEW																
63	Obtain a demolition permit, building permit and a mechanical permit from the City, if required by GSA to do so. These costs were included in the contractors estimates for the proposed renovation.	1	1	ea	\$25,000	\$0										\$0
Limited Public Records Review Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTALS BY YEAR - UNINFLATED						\$12,674,945	\$5,215,750	\$3,638,750	\$8,000	\$27,300	\$312,000	\$7,000	\$7,000	\$10,500	\$7,000	\$21,908,245
ESCALATION FACTOR PER YEAR (3.0%)						1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34	
TOTAL BY YEAR - INFLATED						\$13,055,193	\$5,533,389	\$3,976,160	\$9,004	\$31,648	\$372,544	\$8,609	\$8,867	\$13,700	\$9,407	\$23,018,524
CONTINGENCY @ 10%																\$2,301,852
GRAND TOTAL (INFLATED)																\$25,320,376
TOTALS BY RATING - UNINFLATED						\$12,415,145	\$441,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$12,904,145
TOTALS BY RATING - UNINFLATED						\$78,400	\$1,500	\$1,500	\$2,000	\$6,000	\$0	\$1,000	\$1,000	\$4,500	\$1,000	\$96,900
TOTALS BY RATING - UNINFLATED						\$181,400	\$4,773,250	\$3,631,250	\$0	\$15,300	\$306,000	\$0	\$0	\$0	\$0	\$8,907,200

Rating:
1 - Code/Safety
2 - Repair and Maintenance
3 - Capital Expenditure

Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Rating 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
A. SITE																
	No issues observed.															\$0
	Site Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B. STRUCTURAL																
	No issues observed.															\$0
	Structural Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C. BUILDING EXTERIOR																
1	As an improvement to the appearance and the leaseability of the building remove the existing masonry walls and install a modern insulated, tinted glass curtainwall system with a stone base.	4	1	ls	\$7,457,715	\$3,728,858	\$3,728,858									\$7,457,715
2	In lieu of item #9 above, install new ribbon windows and retain the brick wall below the sill level. Seismically strengthen the masonry wall as required.	4	1	ls	\$5,625,765	\$0	\$0									\$0
	Building Exterior Subtotal					\$3,728,858	\$3,728,858	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,457,715
D. ROOFING																
3	Install overflow drains to the ten roof drains as required by current code. This is not a retroactive code requirement but is recommended.	4	10	ea	\$3,000		\$30,000									\$30,000
	Roofing Subtotal					\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000
E. BUILDING INTERIORS																
4	Provide an allowance to modernize the lobby interior, including creating a two story atrium open to the second floor lobby, and a curtain wall to the exterior.	4	2,000	sf	\$300		\$600,000									\$600,000
	Building Interiors Subtotal					\$0	\$600,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000
F. LIMITED DISABLED-ACCESS REVIEW																
	No issues observed.															\$0
	Limited Disabled-Access Review Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G. HVAC																
5	Upgrade the HVAC System on the 8 floors. Remove the existing air handlers and ductwork and replace with new packaged variable air volume units, ductwork and VAV terminal units. Remove the perimeter radiator system. Bring the air-side portion of the HVAC system up to GSA standards per PBS-PQ100.1 Chapter 5. This is expected to cost approximately \$1,313,802. These costs do not include architectural costs. It is assumed that the HVAC upgrade would be part of a the new tenant improvement work. A local contractor (MBI of Albuquerque) estimated a budget price of \$1,277,422. This is within 3% of BE, LLC's in-house estimate.	4	187,686	sf	\$7		\$1,313,802									\$1,313,802
6	Upgrade the existing system. Install Danfoss valves on the perimeter radiators to provide automatic control. This estimate was developed with the help of a local contractor (MBI of Albuquerque).	4	1	ls	\$129,376	\$129,376										\$129,376

Date of Report: 2/25/04
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Opinions of Probable Costs

Existing Conditions (Rating 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
7	Upgrade the existing system to provide more air flow. Replace the ductwork with larger ductwork and increase the fan speed. The exact ductwork arrangement would depend on the tenant layout. Therefore a general square footage allowance is provided for budgetary considerations. This is an intermediary upgrade. It keeps the old constant volume system, but improves the air flow. This would be done as an alternative to other options. The estimated cost is \$621,241, exclusive of architectural costs. It is assumed that this upgrade would be part of a larger renovation. This estimate was developed with the aide of a local contractor (MBI of Albuquerque).	4	187,686	sf	\$3.31	\$0										\$0
HVAC Subtotal						\$129,376	\$1,313,802	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,443,178
H. PLUMBING SYSTEMS																
8	Upgrade the plumbing sanitary waste piping. Although no issues reported or observed, the galvanized waste piping has a 40 year life expectancy. As part of future renovation of the interior, replace the galvanized sanitary waste piping with cast iron soil pipe. This estimate was developed with the help of a local contractor, MBI of Albuquerque.	4	1	ls	\$230,000		\$230,000									\$230,000
Plumbing Systems Subtotal						\$0	\$230,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$230,000
I. ELECTRICAL SYSTEMS																
9	Replace old style transformers with K Rated type that compensates for electronic loads. This option not required if item #51 is implemented.	4	1	ls	\$125,000	\$0										\$0
10	Completely remove the entire electrical system except for the 5KV switchgear and 4,000-ampere 480/277-volt main switchboard. Install new distribution system, lighting, receptacles, feeders, panelboards, transformers, controls, etc. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).	4	1	ls	\$1,200,000	\$1,200,000										\$1,200,000
11	Replace all switches, receptacles, device plates with modern type. This recommendation is based on BE, LLC's observation and industry standards for maintenance. This recommendation is based in part on the Building Engineering Report (BER).	4	1	ls	\$15,000	\$15,000										\$15,000
12	Retrofit the fluorescent and incandescent fixtures in the 1st through 5th floors with energy efficient lamps and ballasts. This option not required if item #49 is implemented.	4	1,230	ea	\$65	\$0										\$0
13	Provide new recessed fluorescent lighting fixtures on floors 6 through 8 with T8 lamps and electronic ballasts in conjunction with new ceiling system. This option is not required if item #49 is implemented.	4	425	ea	\$225	\$0										\$0
14	Provide occupancy sensors in all offices, conference rooms, utility rooms, etc. for increased energy efficiency. This option is not required if item #49 is implemented.	4	1	ls	\$30,000	\$0										\$0

Date of Report: 2/25/04
Date of Site Visit: 11/6-14/03

Opinions of Probable Costs

Existing Conditions (Rating 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
15	Replace old style incandescent fixtures in the basement, penthouse, and electrical and utility rooms on each floor with energy efficient striplight fixtures. This option is not required if item #49 is implemented.	4	1	ls	\$35,000	\$0										\$0
16	Replace old style exit fixtures with new battery type exit fixtures. Provide additional emergency egress lighting in the common corridors to meet min. 1 fc as required by code. This option is not required if item #49 is implemented.	4	1	ls	\$30,000	\$0										\$0
17	Separate the emergency systems from 500 Gold Avenue. Size the new generator to accommodate the fire alarm system, emergency lighting, security system, fire pump, and elevators. This is in addition to item #49.	4	1	ls	\$60,000	\$60,000										\$60,000
18	Provide a lighting control system and tie into the existing BMS. This is in addition to item #49.	4	1	ls	\$30,000	\$30,000										\$30,000
19	Install a new security system for the building, including, electronic door locks, cameras, and elevator keys. New system to comply with GSA Standards PBS-PQ100.1. This is in addition to item #49.	4	1	ls	\$150,000		\$150,000									\$150,000
Electrical Systems Subtotal						\$1,305,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,455,000
J. FIRE/LIFE-SAFETY SYSTEMS																
20	Provide a secondary fire protection water supply, as required by current code, for high-rise construction.	4	1	ea	\$300,000	\$300,000										\$300,000
21	Replace the 6th floor sidewall sprinklers.	4	50	ea	\$125.00	\$6,250										\$6,250
22	Test and review the sprinkler system water for MIC.	4	1	ea	\$1,500	\$1,500										\$1,500
23	Provide emergency communications (firefighter phones) at each level of each fire stairway, as required by current code, for high-rise construction.	4	1	ea	\$150,000	\$150,000										\$150,000
24	Provide a fire command center on the first floor, as required by current code, for high-rise construction.	4	1	ea	\$400,000	\$400,000										\$400,000
25	Provide an emergency voice alarm communications system, as required by current code, for high-rise construction.	4	1	ea	\$150,000	\$150,000										\$150,000
26	Provide standby power for all emergency systems, as required by current code, for high-rise construction.	4	1	ea	\$200,000	\$200,000										\$200,000
Fire/Life-Safety Systems Subtotal						\$1,207,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,207,750
K. VERTICAL TRANSPORTATION																
27	Provide an allowance to modernize the elevator cab interiors.	4	4	ea	\$35,000		\$140,000									\$140,000
28	Replace incandescent lights in elevator pits with energy-efficient fluorescent lights.	4	4	ea	\$2,000	\$8,000										\$8,000
Vertical Transportation Subtotal						\$8,000	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$148,000
L. SPECIAL SYSTEMS																
Not Applicable.																\$0
Special Systems Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Date of Report: 2/25/04
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Opinions of Probable Costs

Existing Conditions (Rating 4)
517 Gold Avenue
Albuquerque, NM

Item No.	Recommendation	Rating	Qty.	Unit	Unit Cost	Year 1 2004	Year 2 2005	Year 3 2006	Year 4 2007	Year 5 2008	Year 6 2009	Year 7 2010	Year 8 2011	Year 9 2012	Year 10 2013	Totals
M. LIMITED PUBLIC RECORDS REVIEW																
	No issues observed.															\$0
	Limited Public Records Review Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTALS BY YEAR - UNINFLATED					\$6,378,984	\$6,192,660	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,571,643
	ESCALATION FACTOR PER YEAR (3.0%)					1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34	
	TOTAL BY YEAR - INFLATED					\$6,570,353	\$6,569,792	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,140,145
	CONTINGENCY @ 10%															\$1,314,015
	GRAND TOTAL (INFLATED)															\$14,454,160

517 Gold Avenue

ALBUQUERQUE, NEW MEXICO



1. View of the south façade along Gold Avenue.



2. View of the building from the southwest corner.



3. View of the loading dock area.



4. View of the rear surface parking lot.



5. The windows are original and are single glazed.



6. The roof membrane is in fair condition, but will require replacement over the 10-year term.



7. View of the original plaster ceiling system, which should be removed.



8. View of the main entrance lobby. Note the steps down to grade level.



9. View of the steps inside the main fire egress door (typical for both stairways).

517 Gold Avenue

ALBUQUERQUE, NEW MEXICO



10. View of the typical corridor finishes.



11. View of the tunnel below Gold Avenue.



12. View of a typical "open" upper level elevator lobby.



13. View of the typical dated toilet room fixtures and finishes.



14. The boilers were recently replaced.



15. View of the cooling tower, which is in good condition.



16. The main switchgear is in good condition.



17. The fire alarm control panel will become obsolete, and parts will be difficult to obtain.



18. The elevator controllers were replaced and are in good condition.